

Final comment matrix for the Rule 012 revision project

Table of Contents

| | |
|---|----|
| Introduction..... | 2 |
| Section 1 Requirement changes..... | 4 |
| Topic 1 Permissible sound levels for populated areas..... | 4 |
| Topic 2 Ambient sound level and A2 adjustment..... | 13 |
| Topic 3 Determination of permissible sound levels for new dwellings | 19 |
| Topic 4 Noise receptor | 23 |
| Topic 5 Tonality evaluation..... | 26 |
| Topic 6 New noise impact assessment flowchart | 29 |
| Section 2 Clarifications | 33 |
| Topic 7 Submission and retention of noise impact assessment records | 33 |
| Topic 8 Noise impact assessment summary form | 34 |
| Topic 9 Overview of noise impact terminology | 36 |
| Topic 10 Comprehensive sound level survey | 37 |
| Topic 11 Conditions for a time extension request..... | 38 |
| Topic 12 Noise complaint investigation | 39 |
| Topic 13 Statistical method | 40 |
| Topic 14 Definition of heavily travelled road | 41 |
| Section 3 Edits | 42 |
| Topic 15 Deletion | 42 |
| Topic 16 Rephrasing and formatting..... | 43 |
| Section 4 Other considerations from interested parties | 44 |

Introduction

Introduction

In June 2022, the Alberta Utilities Commission initiated a rule revision project to streamline [Rule 012: Noise Control](#) and improve regulatory processes. In the rule revision project, the Commission conducted a written consultation process (including Round 1, Stage 1 of Round 2 and Stage 2 of Round 2), a technical meeting and a limited follow-up consultation.

The table below shows the consultation topics discussed during the rule revision project.

| Project step | | Topic |
|--------------------------------|--------------------|---|
| Written consultation | Round 1 | <ul style="list-style-type: none"> • Noise receptor • Overview of noise impact assessment (NIA) terminology • New NIA flowchart • Submission and retention of NIA records • NIA summary form • Ambient sound level (ASL) • Comprehensive sound level survey • Conditions for a time extension request • Noise complaint investigation • Statistical method • Edits |
| | Stage 1 of Round 2 | <ul style="list-style-type: none"> • Permissible sound levels (PSLs) for populated areas • ASLs for populated areas • Milestone for establishing PSLs at new dwellings |
| | Stage 2 of Round 2 | <ul style="list-style-type: none"> • PSLs for populated areas • Definition of suburban and urban receptors • Milestone for establishing PSLs at new dwellings • Tonality evaluation |
| Technical meeting | | <ul style="list-style-type: none"> • ASLs for populated areas • PSLs for populated areas • Milestone for establishing PSLs at new dwellings • Tonality evaluation |
| Limited follow-up consultation | | <ul style="list-style-type: none"> • ASLs and A2 adjustment <ul style="list-style-type: none"> ○ Blackline Section 2.6 “Ambient sound level” of Rule 012 |

Introduction

This document consists of comment matrices created to summarize feedback from interested parties on the consultation topics and provide Commission responses to major feedback. The consultation topics are organized into three sections based on their relative importance.

- **Section 1 Requirement changes**

Changes for the following topics include new or adjusted requirements for noise terminology, assessment approaches, modelling methods and measurement procedures.

- Topic 1 Permissible sound levels for populated areas
- Topic 2 Ambient sound level and A2 adjustment
- Topic 3 Determination of permissible sound levels for new dwellings
- Topic 4 Noise receptor
- Topic 5 Tonality evaluation
- Topic 6 New noise impact assessment flowchart

- **Section 2 Clarifications**

Changes for the following topics provide clarity or minor adjustments to the existing requirements.

- Topic 7 Submission and retention of noise impact assessment records
- Topic 8 Noise impact assessment summary form
- Topic 9 Overview of noise impact terminology
- Topic 10 Comprehensive sound level survey
- Topic 11 Conditions for a time extension request
- Topic 12 Noise complaint investigation
- Topic 13 Statistical method
- Topic 14 Definition of heavily travelled road

- **Section 3 Edits**

Changes for the following topics remove redundant information, reorganize current requirements and improve the format of the rule.

- Topic 15 Deletion
- Topic 16 Rephrasing and formatting

Section 1 Requirement changes

Section 1 Requirement changes

Topic 1 Permissible sound levels for populated areas

The Commission will make the following changes to Rule 012:

- **Table 1**
 - The Commission will add new columns for suburban and urban receptors in Table 1 of Rule 012.
 - In the new columns, the Commission will specify dwelling density ranges and establish basic sound levels for two new classifications of receptors: suburban and urban.

| Feedback from interested parties | Commission response |
|--|--|
| <p><u>Need for suburban and urban permissible sound levels</u></p> <p>Numerous stakeholders requested the Commission consider amendments to Rule 012 to account for sound levels in populated areas. They pointed out that the assumed ambient sound levels (ASLs) from Table 1 of Rule 012 are not suitable for applications in an urban setting. In particular:</p> <ul style="list-style-type: none"> • AltaLink LP stated that classifications in Table 1 of Rule 012 are not granular enough to capture noise levels in urban environments. • dBA Noise Consultants Ltd. (dNCL) suggested that because the population of Alberta has increased significantly over the past decades with significant changes to its towns and cities, the approach taken in Rule 012 has become outdated. • ENMAX Power Corporation explained that facilities it owns and operates are generally located in or near densely populated urban areas where incremental exceedances of the permissible sound levels (PSL) can result from elevated urban ASLs, not the ENMAX facility. In this case, ENMAX believes the need to measure ASLs and apply for Class A2 adjustments adds an unnecessary level of complexity and regulatory burden. • SLR Consulting Canada Ltd. explained that basic sound levels (BSLs) defined based on Table 1 of Rule 012 may not always be suitable for an | <p>After considering stakeholders' submissions, the Commission agrees that:</p> <ul style="list-style-type: none"> (i) Although Table 1 of Rule 012 accounts for dwelling density and proximity to transportation infrastructure, permissible sound levels (PSLs) established based on Table 1 may not be suitable for urban environments that have high population density and busy residential, commercial and transportation activities. (ii) A2 adjustments may be considered in populated areas if basic sound levels (BSLs)¹ in Table 1 are determined not to be representative of the actual sound environment. However, the need to measure ambient sound levels (ASLs) and seek Class A2 adjustments to PSLs, places an unnecessary regulatory burden on applicants seeking to develop new facilities or change approved facilities in populated areas. <p>In addition, urban PSLs was a key topic in two recent noise complaint proceedings: Proceeding 27276, noise complaint against the City of Grande Prairie Eastlink Centre Power Plant; and Proceeding 27444, noise complaint against the ENMAX No. 28 Substation. The decisions for these proceedings made recommendations related to urban PSLs. Specifically,</p> |

¹ Basic sound levels (BSLs) are nighttime permissible sound levels (PSLs), without Class A to C adjustments.

Section 1 Requirement changes

| | |
|--|--|
| <p>urban location, due to the nature of sources and geography in urban environments.</p> <ul style="list-style-type: none"> Stantec Consulting Inc. explained that the existing provisions in Rule 012 for assessing ASLs are not adequate for urban environments, because (i) Current Table 1 in Rule 012 is not representative in an urban setting; (ii) Health Canada’s <i>Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise</i> (Health Canada guidance) suggests higher baseline sound levels for suburban and urban areas than rural areas. | <ul style="list-style-type: none"> Decision 27276-D02-2022 recommended the Commission explore a method of establishing PSLs in urban environments. Decision 27444-D01-2022 recommended the Commission examine the wording associated with the overall approach to the determination of urban PSLs. <p>For the above reasons, the Commission has decided to specifically address PSLs for populated areas (i.e., urban and suburban receptors) in Rule 012.</p> |
| <p><u>Consistency between Alberta Utilities Commission Rule 012 and Alberta Energy Regulator Directive 038: Noise Control</u></p> <p>Assuming the Commission amends Rule 012 to account for sound levels in populated areas, Stantec suggested the Commission maintain the consistency between Rule 012 and Alberta Energy Regulator (AER) Directive 038 and clarify whether the new PSLs for populated areas would be applicable to AER-regulated facilities.</p> | <p>The Commission understands that facilities regulated by the Alberta Energy Regulator (AER) are typically located in remote or rural environments and rarely within urban or suburban environments. The Commission does not expect that revising Rule 012 to include PSLs specific to urban or suburban receptors will result in conflicts or inconsistencies with AER Directive 038: <i>Noise Control</i>.</p> <p>Rare circumstances where Rule 012 and AER Directive 038 may assign different PSLs to the same receptors could be addressed on a case-by-case basis.</p> |
| <p><u>Definition of suburban and urban receptors</u></p> <p>Most stakeholders agree that the definition of suburban and urban receptors in Rule 012 should reflect higher dwelling density and busier human activities. During the technical meeting, stakeholders generally supported the Commission to continue using dwelling density to define suburban and urban receptors.</p> | <p>The Commission has decided to define suburban and urban receptors in Rule 012. The rule will continue to use dwelling density to classify different areas.</p> <p>In Appendix A of Bulletin 2023-01, the Commission summarized Statistics Canada Census data for Alberta cities and derived dwelling densities for suburban and urban areas. The Commission’s analysis is presented below.</p> <p>The table below presents population densities (i.e., people per square kilometre (km)) for Edmonton and Calgary in the year 2021.²</p> |

² Retrieved April 23, 2023, from: <https://www150.statcan.gc.ca/n1/daily-quotidien/220209/t007b-eng.htm>.

Section 1 Requirement changes

Table 1: Population density for Census metropolitan areas from Statistics Canada³

| City | Population density per square km | | | | |
|----------|----------------------------------|---------------------|-------------|--------------|----------|
| | Distant suburb | Intermediate suburb | Near suburb | Urban fringe | Downtown |
| Edmonton | 17 | 205 | 1,448 | 1,629 | 4,845 |
| Calgary | 17 | 291 | 1,732 | 2,364 | 7,778 |

In addition, the Commission reviewed residential categories defined in Health Canada's *Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise* (Health Canada guidance),⁴ which are presented in the table below.

Table 2: Population density for residential areas in the Health Canada guidance

| Average Census tract population density (number of people per square km) | | | | |
|--|----------------|-----------------|-------|-------------|
| Quiet rural | Quiet suburban | Normal suburban | Urban | Noisy urban |
| 28 | 249 | 791 | 2,493 | 7,913 |

Table 1 of Rule 012 uses dwelling density per quarter section of land, not people per square km. To convert population density to dwelling density, one must know average household size for residents in Alberta. Based on 2021 Census data from Statistics Canada,⁵ the average household size in Alberta is 2.6 people. This Statistics Canada data was used to convert population density

³ Retrieved April 23, 2023, from: <https://www150.statcan.gc.ca/n1/en/daily-quotidien/220209/dq220209b-eng.pdf?st=mflfxj81>
Statistics Canada indicates that:

- Urban fringe (less than 10 minutes drive from downtown by car).
- Near suburb (10 to 20 minutes from downtown).
- Intermediate suburb (20 to 30 minutes from downtown).
- Distant suburb (30 minutes or more from downtown).

⁴ Retrieved April 23, 2023, from: https://publications.gc.ca/collections/collection_2017/sc-hc/H129-54-3-2017-eng.pdf.

⁵ Retrieved April 23, 2023, from: <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?Lang=E&SearchText=Alberta&DGUIDlist=2021A000248&GENDERlist=1,2,3&STATISTIClist=1&HEADERlist=0>.

Section 1 Requirement changes

per square km (from tables 1 and 2 above) into dwelling density per quarter section of land for use in Rule 012 (see tables 3 and 4 below).

Table 3: Dwelling density for Census metropolitan areas from Statistics Canada

| City | Dwelling density (dwellings per quarter section of land) | | | | |
|----------|--|---------------------|-------------|--------------|----------|
| | Distant suburb | Intermediate suburb | Near suburb | Urban fringe | Downtown |
| Edmonton | 4 | 50 | 356 | 400 | 1,191 |
| Calgary | 4 | 71 | 425 | 581 | 1,912 |

Table 4: Dwelling density for residential areas in the Health Canada guidance

| Dwelling density (dwellings per quarter section of land) | | | | |
|--|----------------|-----------------|-------|-------------|
| Quiet rural | Quiet suburban | Normal suburban | Urban | Noisy urban |
| 11 | 96 | 304 | 959 | 3,043 |

Table 1 of Rule 012 uses “1 to 8,” “9 to 160” and “>160” as dwelling density thresholds when establishing BSLs for different types of receptors. However, dwelling densities for urban areas in Alberta may be as high as 1,912 dwellings per quarter section of land (per 0.64 square km). To account for the higher dwelling densities in urban environments, the Commission added two new columns to Table 1 of Rule 012, one for suburban receptors and the other for urban receptors.

The Commission averaged the dwelling densities for “near suburb” and “urban fringe” from Table 3 and the dwelling density for “normal suburban” from Table 4 (i.e., average of 356, 425, 400, 581 and 304), and then used this average value (413) to establish a lower threshold for suburban areas.

The Commission averaged the dwelling densities for “urban fringe” and “downtown” from Table 3 and the dwelling density for “urban” from Table 4 (i.e., average of 400, 581, 1,191, 1,912 and 959), and then used this average value (1,009) to establish a lower threshold for urban areas.

Based on the above analysis, the Commission considers a density of 400 dwellings per quarter section a suitable threshold for defining suburban

Section 1 Requirement changes

| | |
|--|--|
| | <p>areas and a density of 1,000 dwellings per quarter section a suitable threshold for defining urban areas. As such, the Commission will add two columns in Table 1 of Rule 012:</p> <ul style="list-style-type: none"> • 401 to 1,000 dwellings (Suburb), and • >1,000 dwellings (Urban). <p>For each of these new categories, the Commission added progressively higher but conservative BSLs to reflect the higher associated ASLs. The Commission explains how it established the conservative BSLs for suburban and urban receptors in the last section of the comment matrix for this topic.</p> |
| <p><u>How to identify dwelling density for populated areas?</u></p> <p>A few stakeholders expressed concerns that it may be challenging to quantify dwelling density in a populated area, particularly where there are high-rise buildings and other types of multi-family dwellings.</p> | <p>Current Rule 012 defines dwelling density per quarter section as the number of dwellings in a circle of 451-metre (m) radius (quarter section of land) with the affected dwelling at the centre. The Commission suggests that in heavily populated areas, dwellings can first be counted within a circle of smaller radius (e.g., 50 m) and the count scaled up to the full quarter section of land on the assumption that dwelling density is consistent throughout the area. For high-rise residential buildings, noise practitioners can make reasonable assumptions about the number of dwelling units based on the building footprint and number of floors.</p> <p>Furthermore, the Commission encourages noise practitioners to employ any reasonable and publicly available resources, for example, Census data, to identify the dwelling density for a given receptor and to determine if the receptor qualifies as suburban (401 to 1,000 dwellings) or urban (over 1,000 dwellings) receptor.</p> |
| <p><u>Determination of PSLs for suburban and urban receptors</u></p> <p>ENMAX and Stantec proposed the Commission consider the following approaches for addressing urban PSLs:</p> <ul style="list-style-type: none"> • The implementation of urban PSLs similar to noise limits from other jurisdictions. | <p>The Commission added columns with conservative BSLs for suburban and urban receptors in Table 1 of Rule 012, to facilitate a streamlined application process.</p> <p>The Commission strives to ensure, as much as practical, consistency between BSLs in Table 1 of Rule 012 and noise limits in Table 6.1 of Health Canada guidance.</p> <p>When assumed ASLs are not representative of conditions at a receptor, two approaches may be considered to evaluate compliance with Rule 012:</p> |

Section 1 Requirement changes

| | |
|--|---|
| <ul style="list-style-type: none"> • Revisions to Table 1 of Rule 012, to incorporate higher population density, higher transportation activity, permissible land use in the relevant area (i.e., zoning) and other urban activities. • The use of a measured ASL to determine the applicable PSL. <p>AltaLink and Stantec recommended higher PSLs to provide a more accurate representation of urban areas similar to those described in Table 6.1 of Health Canada’s <i>Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise</i> (Health Canada Guidance).</p> <p>Stakeholders also commented on how best to define BSLs for suburban and urban receptors during the technical meeting, including:</p> <ul style="list-style-type: none"> • Stakeholders generally supported the establishment of conservative BSLs for populated areas in Table 1 of Rule 012. • Stakeholders proposed two approaches when BSLs from Table 1 of Rule 012 are not representative of the acoustic environment for a particular receptor: (i) regulating facility-only noise such that ambient/background noise need not be considered; or (ii) considering additional adjustments, such as the A2 adjustment, based on measured ASL. | <ul style="list-style-type: none"> • Conducting ASL surveys to establish applicable PSLs for the receptor, or • Use of the no net increase approach to demonstrate compliance. <p>In summary, the Commission will address applicable PSLs in populated suburban and urban areas using a combination of three approaches, depending on the receptor environment and the nature of the facility being assessed:</p> <ol style="list-style-type: none"> (i) Use of conservative BSLs for suburban and urban receptors in the revised Table 1 of Rule 012, (ii) Use of A2 adjustment in circumstances where defined BSLs are not representative, and (iii) Use of no net increase approach to evaluate compliance for facilities or facility amendments with minimal noise emissions. <p>The Commission discusses how it established the BSL values at the end of the comment matrix for this topic.</p> |
| <p><u>Is it necessary to measure ambient sound levels for all receptors in populated areas?</u></p> <p>Some stakeholders suggested the Commission require ASL surveys for all receptors in populated areas, particularly in urban environments.</p> | <p>The Commission does not require ASL surveys for all receptors in populated areas, because the Commission considers this would not be in the public interest given:</p> <ul style="list-style-type: none"> • It could be challenging to reach agreement on a single representative daytime/nighttime PSL for a given receptor; and • It could result in needless additional time and costs for small new facilities or minor amendments to existing facilities. |
| <p><u>Comparison between basic sound levels in Rule 012 and noise limits from other jurisdictions</u></p> <p>Stakeholders expressed concerns that energy-related facilities may sometimes be required to adhere to noise limits in local bylaws, and suggested the</p> | <p>The Commission heard stakeholders’ concerns; however, this is not always the case. For example, Calgary Bylaw 32M2023 exempts “any activity within the sole jurisdiction of the Government of Canada or the Province of Alberta”.⁶</p> |

⁶ Calgary Bylaw 32M2023, Being a bylaw of the city of Calgary to repeal and replace bylaw 5m2004, Community standards bylaw, PDF page 19.

Section 1 Requirement changes

Commission consider collaboration between cities, municipalities and provincial regulators to establish uniform PSL guidelines.

The Commission understands a facility would ideally satisfy both AUC and local government requirements. However, the Commission does not believe that Rule 012 should be adjusted to be consistent with municipal bylaws, because these bylaws may use different approaches, units, terms or categories/zones to evaluate compliance. In addition, the Commission notes that many (or most) municipal bylaws do not consider cumulative sound levels, as Rule 012 does; instead, these bylaws provide limits for facility-only noise.

How the Commission established the conservative BSLs for suburban and urban receptors in Table 1 of Rule 012

As mentioned above, the Commission added two columns to Table 1 of Rule 012 with conservative BSLs for suburban and urban receptors.

The new version of Table 1 of Rule 012 is presented below:

| Basic sound levels (dBA L _{eq}) | | | | | |
|---|--|--------------------|----------------------|------------------------------------|-----------------------------|
| Proximity to transportation | Dwelling density per quarter section of land | | | | |
| | 1 to 8 dwellings | 9 to 160 dwellings | 161 to 400 dwellings | 401 to 1,000 dwellings (Suburb) | >1,000 dwellings (Urban) |
| Category 1 | 40 | 43 | 46 | 48 | 53 |
| Category 2 | 45 | 48 | 51 | 51 | 53 |
| Category 3 | 50 | 53 | 56 | 56 | 56 |

There are two main factors that the Commission considers when establishing BSLs:

- Population/dwelling density
BSLs are expected to be highly correlated with population/dwelling density in rural environments but the correlation is expected to weaken for very high population densities.
- Traffic
The Commission expects a strong negative correlation between ASLs and distance to heavily travelled roads and rail lines. For receptors that are far from heavily travelled roads/rail lines, the expectation is that population/dwelling density will be the most important factor. For receptors that are very close to heavily travelled roads/rail lines, the Commission expects traffic noise to be the most important factor (i.e., to dominate the population factor).

In the following paragraphs, the Commission presents its justification and explanation for the BSLs for categories 1, 2 and 3 suburban and urban receptors.

Section 1 Requirement changes

Category 1 BSLs for suburban and urban receptors

The Commission expects ASLs in suburban and urban environments to be correlated with dwelling/population density. Increasing dwelling/population density will result in increasing ASLs. For example, Table 6.1 of the Health Canada guidance indicates that sound levels increase with increasing population density. The Commission notes stakeholders' recommendation that PSLs for populated areas should be consistent with the ASL values for suburban and urban areas described in Table 6.1 of the Health Canada guidance.

The Commission notes that Table 6.1 of the Health Canada guidance uses day-night sound level (L_{dn}) values, while Table 1 of Rule 012 uses BSLs. To derive appropriate BSLs for the suburban and urban receptors, the Commission must calculate L_{dn} values using ASLs established based on BSLs in Table 1. The Commission used the following steps to convert BSLs into L_{dn} :

- The Health Canada guidance states that L_{dn} indicates that the sound was averaged over 24 hours with 10 dBA added to nighttime sound levels (from 10:00 p.m. to 7:00 a.m.).
- The assumed nighttime ASL is five dBA less than the BSL presented in Table 1, and the assumed daytime ASL is five dBA greater than the BSL presented in Table 1.
- After averaging the sound over 24 hours with 10 dBA added to nighttime sound levels, the L_{dn} corresponding to a BSL of 40 dBA is 45 dBA, the L_{dn} corresponding to a BSL of 43 dBA is 48 dBA, and so on.

The table below shows BSLs from revised Table 1 of Rule 012, corresponding nighttime/daytime ASLs and calculated L_{dn} values, for Category 1 receptors (from rural to urban receptors). The same table also compares the L_{dn} values calculated based on BSLs for Category 1 receptors in Table 1 of Rule 012 **and** the L_{dn} limits from Table 6.1 of the Health Canada guidance for equivalent receptors.

| Revised Rule 012 Table 1 Category 1 (dBA) | Dwelling density per quarter section of land | | | | |
|---|--|----------------------------|----------------------|------------------------------------|-----------------------------|
| | 1 to 8 dwellings | 9 to 160 dwellings | 161 to 400 dwellings | 401 to 1,000 dwellings (Suburb) | >1,000 dwellings (Urban) |
| BSL | 40 | 43 | 46 | 48 | 53 |
| Nighttime ASL | 35 | 38 | 41 | 43 | 48 |
| Nighttime/daytime ASL | 45 | 48 | 51 | 53 | 58 |
| Calculated L_{dn} | 45 | 48 | 51 | 53 | 58 |
| Health Canada Guidance Table 6.1 (dBA) | Quiet rural | Quiet suburban residential | | Normal suburban residential | Urban residential |
| L_{dn} | ≤45 | 48 to 52 | | 53 to 57 | 58 to 62 |

Section 1 Requirement changes

The above table indicates that L_{dn} values calculated based on BSLs for Category 1 receptors are generally consistent with Health Canada guidance for rural, suburban and urban environments. In particular, L_{dn} values calculated based on BSLs for Category 1 suburban and urban receptors are equal to the lower limits for equivalent receptors from the Health Canada guidance. It is reasonable to conclude that the Category 1 BSLs in revised Table 1 of Rule 012 for suburban and urban receptors are **conservative** when compared to noise limits from the Health Canada guidance. Stakeholders did not express any concerns about the conservatism of the proposed BSLs for Category 1 suburban and urban receptors.

Based on the above analysis, the Commission finds it reasonable and conservative to use 48 dBA and 53 dBA as BSLs for Category 1 suburban and urban receptors.

Category 2 and 3 BSLs for suburban and urban receptors

Categories 2 and 3 in current Table 1 of Rule 012 give upward adjustments for receptors that are close to heavily travelled roads or rail lines or subject to frequent aircraft flyovers.

- Category 2 gives a 5 dBA adjustment to receptors that are ≥ 30 m but < 500 m from heavily travelled roads or rail lines and not subject to frequent aircraft flyovers.
- Category 3 gives a 10 dBA adjustment to receptors that are < 30 m from heavily travelled roads or rail lines or subject to frequent aircraft flyovers.

The Commission notes that Table 6.1 of the Health Canada guidance does not consider distance to heavily travelled roads or rail lines when establishing noise limits. As such, it is not possible to compare BSL values for Category 2/3 receptors in new Table 1 of Rule 012 to noise limits described in Table 6.1 of the Health Canada guidance.

The Commission's explanation of traffic adjustments for Categories 2 and 3 BSLs for suburban and urban receptors is presented below.

Category 2:

For rural receptors (e.g., receptors that have a dwelling density less than or equal to 160), Table 1 of Rule 012 indicated that traffic noise could increase the ASL by five dBA (relative to Category 1) for receptors that are located between 30 and 500 m of a heavily travelled road or rail line.

However, this five dBA adjustment for traffic noise may not be applicable for suburban and urban receptors where noise associated with the elevated population density can also have a substantial influence.

It is reasonable to assume the influence of traffic noise on ASLs at receptors in populated areas is **less** significant than the influence of traffic noise at receptors located in less populated areas, because in a populated area, proximity to transportation infrastructure is a less relevant factor for adjusting ASLs (i.e., smaller increments should be used to reflect less influence from traffic noise for suburban and urban receptors).

For suburban receptors, traffic may increase the ASL by less than five dBA (relative to Category 1) for receptors located between 30 and 500 m of a heavily travelled road or rail line. The current Rule 012 defines BSL for Category 2 receptors with a dwelling density greater than 160 as 51 dBA. The Commission believes it is reasonable to continue using the 51 dBA BSL for Category 2 suburban receptors, which gives a three dBA increase (relative to Category 1) for suburban receptors.

Section 1 Requirement changes

For urban receptors, we have established the BSL for Category 1 urban receptors at 53 dBA. The Commission believes it is reasonable to use the same 53 dBA BSL for Category 2 urban receptors, based on the assumption that traffic will not increase BSLs (relative to Category 1) for urban receptors.

Category 3:

For rural receptors (e.g., receptors that have a dwelling density less than or equal to 160), Table 1 of Rule 012 indicated that traffic would increase the ASL by 10 dBA (relative to Category 1) for receptors within 30 m of a heavily travelled road or rail line.

When receptors are located less than 30 m from heavily travelled roads or rail lines or are subject to frequent aircraft flyovers, it is reasonable to expect that traffic noise will dominate other sources even in areas with high population density.

The current Rule 012 defines BSL for Category 3 receptors with a dwelling density greater than 160 as 56 dBA. The Commission believes it is reasonable to continue using the 56 dBA BSL for Category 3 suburban and urban receptors, based on the assumption that traffic noise will mask noise from other residential activities in suburban and urban environments when receptors are located very close to traffic sources (i.e., BSLs for Category 3 receptors will not increase with dwelling density once the dwelling density reaches 160).

Topic 2 Ambient sound level and A2 adjustment

The Commission will make the following changes to Rule 012:

- **Section 2.6**
 - Subsection 2.6(2) will be updated to clarify that ASLs assumed based on Table 1 should be used in most cases.
 - In the new subsection 2.6(3), the Commission will provide clarity about cases where ASL surveys and A2 adjustments may be considered.
 - The Commission will introduce a clause (new subsection 2.6(4)) requiring applicants or stakeholders to complete a pre-survey process for downward A2 adjustments.
 - The Commission will add a clause (new subsection 2.6(6)) allowing modelling for traffic noise to establish ASLs, in circumstances where values in Table 1 of Rule 012 are not representative of the acoustic environment at the receptor, traffic noise is dominant, and ASL surveys are not practical.

| Feedback from interested parties | Commission response |
|--|--|
| <p><u>Assumed vs. measured ASLs</u></p> <p>dNCL's view is PSLs should be established based on a measured ASL or a calculated traffic noise level, if the receptor is close to a transportation route. dNCL explained that the A2 adjustment with its application and approval procedure could then be eliminated and replaced by a regular noise assessment with a PSL based on a measured or calculated (traffic noise) ASL.</p> | <p>Table 1 of Rule 012 BSLs based on dwelling density and proximity to traffic. BSLs are nighttime PSLs, without Class A to C adjustments.</p> <p>The Commission notes that use of an assumed ASL is not intended to describe ambient conditions at a particular receptor on a particular night; instead, this</p> |

Section 1 Requirement changes

dNCL believed this approach (i.e., replacing A2 adjustments with measured or calculated ASLs) would resolve the discrepancies that currently arise in urban areas and diminish the regulatory burden for proponents. dNCL noted that concerned stakeholders typically do not understand why no ASL survey was conducted, and frequently request one.

Similarly, SLR suggested the Commission consider measurements as the “logical approach” and “best way to address the large spread in sound levels across similar population density communities”, especially for urban environments.

That said, during the technical meeting other stakeholders generally supported Table 1 of Rule 012 and associated categories for BSLs. Some stakeholders, including WSP Global Inc. and Stantec, expressed concerns about the complexity of using measured ASLs in urban areas, including the significant variation in sound environment based on factors like day/night, winter/summer, and traffic volume. They also emphasized the impracticality of reducing measured ASLs to a single value as required for the daytime/nighttime PSL.

Specifically, stakeholders highlighted some challenges associated with ASL surveys, which include:

- The difficulty of obtaining permission for noise measurements in urban settings, making measured ASLs less feasible in such cases.
- ASL surveys might not be realistic in certain settings, for example, where an existing substation would be required to shut down to conduct an ASL survey.

value is intended to describe typical or representative ambient conditions and to inform acceptable PSLs for receptors.

As stated by stakeholders, measured ASLs can be highly variable, because measured ASLs reflect the particular environmental conditions and nearby activities that are present at the time the measurements are collected. In particular, in populated areas where urban/suburban activities take place, the noise from those activities can be random, intermittent and unpredictable for different times and different locations, making it difficult to establish a single representative ASL.

The Commission will maintain use of assumed ASLs for rural areas and extend this approach to populated areas. Any acoustic environments where assumed ASLs are not representative can and should be addressed by application of A2 adjustments. With respect to assumed vs. measured ASLs, the Commission clarifies that:

- The use of the assumed ASLs in Rule 012 is intended to provide a reasonable, consistent, and practical mechanism for predicting and assessing cumulative sound levels in noise impact assessments (NIAs).
- The use of assumed ASLs is also intended to promote consistency when assessing energy-related projects in similar environments and when assessing noise compliance at receptors within a common project area.
- Assumed ASLs have been used since the introduction of Rule 012. Use of assumed ASLs prevents divergence between PSLs for oil and gas facilities regulated by the AER and utility facilities regulated by the AUC.
- Rule 012 requires AUC-regulated facilities to be compliant with daytime and nighttime PSLs. The daytime/nighttime PSL for a specific receptor is a single number, instead of a range of sound levels. As suggested by stakeholders during the technical meeting, it is complex and challenging to establish a single representative ASL value based on measurements.

Further, requiring ASL surveys for all receptors would be a fundamental change to the rule. Stakeholders suggested the Commission strive to maintain consistency between Rule 012 and AER Directive 038. The Commission is

Section 1 Requirement changes

| | |
|--|---|
| | <p>concerned that any fundamental changes to the approach for establishing BSLs/PSLs would work against such consistency.</p> |
| <p><u>Class A2 adjustment and its application</u></p> <p>ENMAX submitted that many of its facilities are located in or near urban centres, which has made it difficult to meet PSLs without an A2 adjustment. ENMAX explained that an A2 adjustment that is only required because of an incremental exceedance of the unadjusted PSL where the urban ASL is already high (and not because the facility itself is exceedingly noisy), adds unnecessary complexity and regulatory burden.</p> <p>During the technical meeting, experts from various consulting firms shared their views on the current Rule 012 guidelines for assumed and measured ASLs. They emphasized that the guidelines (including provisions for A2 adjustments) work well for rural environments but may pose challenges in urban and populated areas. Stakeholders generally supported addition of conservative BSLs in Table 1 for populated areas (i.e., suburban and urban receptors), but suggested utilizing A2 adjustments when BSLs in Table 1 are not representative of the acoustic environment in populated areas.</p> | <p>As mentioned above, it is important to maintain consistency between Rule 012 and AER Directive 038 regarding use of assumed/measured ASLs and application of A2 adjustments.</p> <p>The first version of Rule 012 came into force on March 24, 2009, and was largely modelled on the February 2007 version of AER Directive 038. Rule 012 has been amended several times since its introduction. As with AER Directive 038, every version of Rule 012 has allowed applicants to use an assumed ASL unless the project area is characterized as pristine or unusually noisy. More specifically, every iteration of Rule 012 included a version of Table 2: Class A Adjustments, which identifies the two cases where the use of an assumed ASL may not be representative of the project area: (a) pristine areas (as defined in each version of the rule), and (b) areas that have non-energy industrial activity that would impact the ASL. The Commission will maintain this provision with the following modification.</p> <p>In addition to pristine areas and areas dominated by non-energy industrial activity, the Commission will add populated areas as another case in which application of A2 adjustments (or measured ASLs) may be considered.</p> <p>As mentioned above, the Commission has extended the use of assumed ASLs to populated areas by adding two columns for suburban and urban receptors. When the assumed ASLs are not representative of the acoustic conditions of a receptor, ASL surveys may be conducted and A2 adjustments may be applied for to establish applicable PSLs.</p> <p>In summary, the Commission will limit ASL surveys and associated A2 adjustments to the following cases:</p> <ul style="list-style-type: none"> (a) pristine areas (as defined in the rule), or (b) areas that have non-energy industrial activity that would impact the ASL, or (c) populated areas (i.e., suburban and urban receptors) where assumed ASLs are not representative. <p>The Commission consulted with the AER and both parties agree that making populated areas eligible for an A2 adjustment would not result in conflicts or</p> |

Section 1 Requirement changes

| | |
|--|---|
| | <p>inconsistencies with AER Directive 038, because AER-regulated facilities are typically located in remote or rural environments and rarely within urban or suburban environments.</p> |
| <p><u>Should the Commission specify cases for A2 adjustments in Rule 012?</u></p> <p>SLR suggested the Commission not specify cases where A2 adjustments may be considered or necessary; instead, SLR suggested an A2 adjustment be allowed whenever measured ASLs indicate that values in Table 1 are not representative of the actual acoustic environment.</p> | <p>The Commission will allow A2 adjustments only in the three cases listed above. Wherever feasible, the Commission intends to maintain consistency between Rule 012 and AER Directive 038. AER Directive 038 specifies cases (i.e., pristine areas and areas dominated by non-energy industrial activity) where A2 adjustments may be necessary.</p> <p>The Commission considers that allowing ASL measurements and A2 adjustments in any/all circumstances could result in multiple parties presenting conflicting PSLs for the same receptor (based on ASL measurements collected on different days and/or during different environmental conditions) and would create a substantial difference between Rule 012 and AER Directive 038, which could be problematic in environments where AER and AUC-regulated facilities are both present.</p> |
| <p><u>Is the Commission capable of deciding whether an ASL survey is necessary?</u></p> <p>dNCL submitted that in circumstances where applicants and stakeholders find that the ASL from Table 1 is not representative of the project area, measurements for an A2 adjustment may be considered, and not left to the discretion of the AUC.</p> <p>Further, dNCL was concerned that the AUC is not equipped to assess if a downward A2 adjustment is justified, and recommended the Commission include criteria in Rule 012 for circumstances where a downward A2 adjustment may be considered.</p> <p>Similarly, SLR asked how the Commission will determine if a downward A2 adjustment is appropriate.</p> | <p>The Commission maintains discretion to determine if an ASL survey or a Class A2 adjustment is required in a particular area. In particular, the Commission will add a subsection in Section 2.6 that requires applicants or stakeholders to complete a pre-survey process with the Commission before measuring ASLs for a downward A2 adjustment. During the pre-survey process, the Commission will determine if a downward A2 adjustment is appropriate and if so, the Commission will specify measurement requirements for the ASL survey.</p> <p>The Commission is capable of deciding whether an ASL survey is necessary. For example, the Commission made findings about the necessity of ASL surveys in Decision 24401-D01-2019 (Sharp Hills Wind Project amendment) and Decision 22736-D01-2020 (Lanfine Wind Project). These findings were made based on information that would have been available before the ASL surveys (i.e., the fact that the receptors were located in a typical rural environment used for agricultural activities) and not based on review of information gathered during the ASL surveys. In both cases, the Commission concluded that a departure from the assumed values of Table 1 of Rule 012</p> |

Section 1 Requirement changes

| | |
|---|---|
| | <p>was not warranted and that it was reasonable to rely on the assumed ASLs based on Table 1 of Rule 012 as being representative of the project area.</p> <p>In most cases, the Commission can decide on the necessity of ASL surveys based on information in the application. In circumstances where there is a dispute among parties on the necessity of an ASL survey, the Commission can seek input from relevant parties (i.e., applicant and interveners) and then approve or deny the ASL survey before parties incur the expense of collecting measurements.</p> <p>The Commission notes stakeholders' concerns about how the Commission will determine if a downward A2 adjustment is appropriate. The Commission will limit the cases for downward A2 adjustments to:</p> <ul style="list-style-type: none">• a pristine area, or• a populated area (i.e., suburban and urban receptors). <p>When a pre-survey process is submitted to the Commission for a downward A2 adjustment, the Commission would determine whether the area in question is consistent with any of the specified cases and, if so, the Commission will specify measurement requirements for the ASL survey. Upon reviewing the ASL survey, potential A2 adjustments based on the survey, would be considered.</p> |
| <p><u>Should the pre-survey process be conducted for downward A2 adjustments or for all A2 adjustments?</u></p> <p>The AER supported the Commission's proposal to require a pre-survey process for A2 adjustments but suggested the pre-survey process apply to downward adjustments and upward adjustments.</p> | <p>The Commission notes that Directive 038 requires noise practitioners to contact the AER and obtain approval before measuring ASLs and applying for A2 adjustments (for both upward and downward A2 adjustments).</p> <p>The Commission considers that a downward A2 may be controversial. For example, parties may disagree whether or not an area is pristine, and parties may disagree what wind speed constitutes "representative conditions". As such, it's important for the Commission to pre-evaluate any application for a downward A2 adjustment and specify, in advance, the specific measurement conditions/procedures. In contrast, the conditions required for an upward A2 adjustment are more clear and objective. For example, parties are unlikely to disagree whether a non-energy facility is present in a given area (e.g., a large factory either is or is not present), and if such a facility is present, then ASLs are likely dominated by its noise such that environmental factors are less important.</p> |

Section 1 Requirement changes

| | |
|--|--|
| | <p>As such, the Commission is comfortable with parties seeking an upward A2 adjustment without a pre-survey process.</p> |
| <p><u>Other concerns about the pre-survey process</u></p> <p>Some stakeholders believed the pre-survey process for downward A2 adjustments would give clear and specific directions for potential ASL surveys. However, a few stakeholders, including dNCL and Motive Acoustics, expressed concerns that the pre-survey process would delay the A2 adjustment application process and increase the cost for an ASL survey.</p> | <p>The Commission believes that the pre-survey process would provide a mechanism for evaluating the case for an ASL survey before the survey is conducted, which could prevent unnecessary effort and cost in cases where an A2 adjustment is not appropriate.</p> <p>During a pre-survey process, the Commission will promptly evaluate requests to conduct ASL surveys and believes the pre-survey process will not materially extend approval timelines for applications that include A2 adjustments.</p> |
| <p><u>Modelling of traffic noise to establish ASLs</u></p> <p>HGC Engineering suggested the Commission consider allowing traffic modelling to establish ASLs in cases where road traffic is a dominant noise source at urban/suburban receptors and ASL surveys are not practical.</p> <p>Similarly, dNCL suggested PSLs or A2 adjustments be established based on measured or calculated (traffic noise) ASLs.</p> <p>Further, during the technical meeting, stakeholders from SLR and Stantec suggested the Commission consider modelling traffic noise as an alternative approach to establish ASLs where surveys are not practical.</p> | <p>The Commission understands there are numerous traffic modelling standards available, and some commercial software programs (e.g., CadnaA®) have incorporated these standards to model traffic noise. The Commission will allow modelling for traffic noise to establish ASLs, in circumstances where values in Table 1 of Rule 012 are not representative of the acoustic environment at the receptor, traffic noise is dominant, and ASL surveys are not practical.</p> <p>The Commission will add a new section to Rule 012 accordingly.</p> |
| <p><u>Technical requirements for ASL surveys</u></p> <p>dNCL suggested the Commission publish a separate technical document specifying requirements for ASL surveys.</p> <p>SLR suggested the Commission specify the duration of an ASL survey to determine the representative sound levels and how the ASL should be determined based on the survey.</p> | <p>The Commission believes it is unnecessary to publish a separate technical document or specify further technical requirements for ASL surveys, because:</p> <ul style="list-style-type: none"> (i) Rule 012 already provides general requirements for ASL surveys in the following sections: <ul style="list-style-type: none"> a. Section 2.6 Ambient sound level, b. Section 4.6 Sound level surveys report requirements, and c. Section 4.7 Measurement equipment. (ii) During the pre-survey process for downward A2 adjustments, the AUC will specify any additional measurement requirements for the ASL survey; and |

Section 1 Requirement changes

| | |
|---|--|
| | (iii) ASL measurements may need to be tailored to address the receptor-specific environment. |
| <p><u>Feasibility of creating a noise map for measured ASLs</u></p> <p>During the technical meeting, a few stakeholders suggested the Commission create a noise map for measured ASLs. These stakeholders explained that PSLs could be determined for receptors in urban and suburban areas based on this map.</p> | <p>The Commission does not consider it practical to create noise maps for determining ASLs or PSLs in suburban and urban areas because:</p> <ul style="list-style-type: none"> • Any such noise maps would require a very large number of measurements and/or a very large and complex computer model. If the Commission were to encourage widespread measurements for all receptors (to establish ASLs or to create noise maps), it would result in unnecessary regulatory burden (i.e., work and cost); and • A noise map for measured ASLs would cause confusion, because such a map based on measurements could present multiple ASLs/PSLs for a given receptor since measured noise levels are highly variable. However, Rule 012 regulates noise based on project compliance with PSLs. A single daytime/nighttime PSL should be determined for each receptor (rather than a range of sound levels). |

Topic 3 **Determination of permissible sound levels for new dwellings**

The Commission will make the following changes to Rule 012:

- **Sections 2.4 and 2.5**
 - The Commission will add a new subsection (subsection 2.4(1)) specifying the AUC approval or permit and licence as a milestone for determination of new dwelling PSLs. Any dwelling that is built after the AUC approval or licence and permit would then be considered a “new dwelling” per Rule 012.
 - The Commission will also introduce a new post-approval notification process (subsection 2.4(2)). The Commission expects that once a facility receives approval from the Commission, the licensee will notify impacted stakeholders, including occupants, residents, landowners, Indigenous groups, and industrial stakeholders within the Rule 007⁷ notification radius, local jurisdictions, and other relevant agencies about the Commission approval and the construction completion date in the approval.
 - As the Commission will use the AUC approval as a milestone for determination of new dwellings, the Commission will combine sections 2.4 and 2.5 into one section “Permissible sound levels for new dwellings built in proximity to an approved facility”.

⁷ Rule 007: *Applications for Power Plants, Substations, Transmission Lines, Industrial System Designations, Hydro Developments and Gas Utility Pipelines.*

Section 1 Requirement changes

- The Commission will add a subsection to clarify whether an amendment application will trigger a new milestone for defining new dwellings.

| Feedback from interested parties | Commission response |
|--|--|
| <p><u>Milestone options for new dwelling PSLs</u></p> <p>Stakeholders provided the following suggestions on milestones for determination of PSLs at new dwellings:</p> <ul style="list-style-type: none"> ● Noticeable construction activities (e.g., presence of a noticeable foundation). ● Ordering of major equipment. ● Project application deemed complete date. ● Final project update. <p>In addition, ATCO Electric Ltd. explained that for facilities where construction is underway and, at a minimum, foundation work has been completed, having to potentially amend the approved facility during construction would be an unreasonable burden on the licensee, and mitigation can be extremely expensive and could have significant impacts to the approved facility’s design and operation.</p> <p>ENMAX noted that foundation work is not always required, particularly in the case of modifications to an existing facility. ENMAX clarified that many of its projects are transformer replacements within existing fencelines, so the usual indicators of construction are not apparent. In addition, ENMAX was concerned about use of equipment selection as a milestone. It pointed out that large equipment like transformers can have up to a three-year lead time (i.e., a long-time gap between equipment selection and construction commencement).</p> <p>Green Cat Renewables Canada Corporation (GCR) suggested that the Commission adopt guidance indicating that once final equipment specifications are filed, all new residences in a project study have a PSL defined by the modelled cumulative sound level. Notwithstanding, should a developer amend the specifications of equipment that has been finalized, this guidance would not be applicable, and the assessment must then consider new dwellings based on Section 2.1 of Rule 012.</p> | <p>The Commission notes that some municipalities have indicated they would like to receive notice when a project is approved within their jurisdiction so they can advise their permitting departments.</p> <p>The Commission does not consider commencement of construction activities or foundation work to be a reasonable milestone for new dwelling PSLs, because much of a facility’s design is finalized before commencing construction and it would not be feasible to re-design or mitigate the facility to accommodate a new dwelling at the construction stage.</p> <p>The Commission does not consider equipment selection/ordering a reasonable milestone for new dwelling PSLs, because it is not practical for a nearby landowner to understand whether and when the applicant has selected or ordered equipment (i.e., in most cases, there would be no publicly available information about equipment selection/ordering).</p> <p>The Commission does not consider project application deemed complete date a reasonable milestone for new dwelling PSLs, because this date means the Commission does not need further information to decide on an application; however, this does not imply that the applications will be approved.</p> <p>The Commission does not consider final project update a reasonable milestone for new dwelling PSLs, because at that time the application has been decided and a final project update is supposed to address minor changes to the approved project. It would not be feasible re-design or mitigate the facility to accommodate a new dwelling in the final project update.</p> <p>After considering stakeholders’ feedback and municipalities’ suggestions, the Commission finds it is reasonable to use the date of the Commission’s approval or permit and licence as a milestone for determination of PSLs at a new dwelling. Any dwelling that is built after the Commission approval or permit and licence will be considered a “new dwelling” per Rule 012. Amendments to sections 2.4 and 2.5 will be made to reflect this. Consequently, the PSL at the new dwelling will be the greater of the modelled cumulative sound level at the</p> |

Section 1 Requirement changes

| | |
|---|--|
| | <p>start of the dwelling construction or the PSL as determined in Section 2.1 of Rule 012.</p> <p>The Commission will also introduce a post-approval notification process. The Commission expects that once a facility receives approval from the Commission, the proponent will notify impacted stakeholders, including occupants, residents, landowners, Indigenous groups, and industrial stakeholders within the Rule 007 notification radius, local jurisdictions, and other relevant agencies about the Commission approval to let stakeholders know a facility close to their land or residence has been approved and will be built in the future.</p> |
| <p><u>Will an amendment application trigger a new milestone for defining new dwellings?</u></p> <p>N/A</p> | <p>With respect to amendment applications, the Commission clarifies that:</p> <ul style="list-style-type: none"> • If an applicant submits an amendment application for an approved and <i>already constructed</i> project, the Commission will continue using the date of the original approval for the purpose of defining new dwellings (i.e., any dwelling constructed after the date of the original approval will be considered a new dwelling when establishing PSLs). • If an applicant submits an amendment application for an approved <i>but not yet constructed</i> project, the date in the original approval can no longer be used for the purpose of defining new dwellings. The amendment application approval will become the milestone for the purpose of defining new dwellings (i.e., proponents applying for an amendment must consider dwellings constructed after the date of the original approval, but any dwelling constructed after the amendment application approval will be considered a new dwelling when establishing PSLs). Any dwellings constructed between the milestone date for the approved version of the project and new milestone date for the amended project will be considered existing dwellings when establishing PSLs, and the applicant is required to demonstrate that the amended project will be compliant with the PSLs determined in accordance with Section 2.1 of Rule 012 at these dwellings. |
| <p><u>Ontario's crystallizing method</u></p> | <p>The Commission understands that Ontario's "crystallizing" method is (i) comparable to the Commission's deemed complete process and the final</p> |

Section 1 Requirement changes

HGC submitted that the renewable energy guidelines from the Ontario Ministry of Environment, Conservation, and Parks, include one method for “crystallizing” projects. HGC clarified the Ontario crystallization framework:

- It is mainly geared towards wind projects, and it was more about jockeying for position within the acoustic budget within certain areas. For example, when constructing a wind farm, the licensee had to publish some details, and other facilities would have to adjust for that.
- The final project update or amendments would have to account for the changes that have occurred.

project update condition; and (ii) related to noise room within certain areas. It is not related to determination of PSLs at new dwellings.

The Commission does not consider an application deemed complete letter a reasonable milestone for new dwelling PSLs. In accordance with Rule 007, the Commission will issue an application complete letter in a proceeding when it has deemed an application to be complete. The timing of these letters may vary depending on the specifics of a proceeding. Further, an application deemed complete letter does not imply that a project will be approved and parties contemplating the construction of a dwelling between the deemed complete and approval dates do not have the benefit of knowing whether a project will ultimately impact them. Therefore, the deemed complete date does not provide the same level of certainty to parties as the Commission’s approval date.

Also, the Commission does not consider a final project update a reasonable milestone for new dwelling PSLs. In accordance with Rule 007, after the Commission issues an approval for a project, the licensee is allowed to file a final project update for minor changes to the approved project. However, changes to the project design required to accommodate a new dwelling would likely be too substantial to qualify as a final project update and instead a new application would need to be filed for the amendment.

Clarification to Section 2.3 of Rule 012

ENMAX suggested the Commission update Section 2.3 to make it clear that the owner/resident of a new dwelling is assumed to accept the noise level existing at the time of dwelling construction as the applicable PSL (the new dwelling rule).

ENMAX explained that if there is a noise impact assessment (NIA) for the facility in question, the modelled cumulative sound levels at the new dwelling will apply; however, if there is no NIA for the facility (potentially because the facility pre-dates any associated application requirement), ENMAX recommended the Commission accept measured comprehensive sound levels (CSLs) or modelled cumulative sound levels that represent the sound levels from the facility at the start of new dwelling construction, regardless of whether there is an NIA from that time.

The Commission finds Section 2.3 of Rule 012 gives clear direction about determination of PSLs at a new dwelling close to an existing facility, and no further clarification is necessary.

Section 2.3 of Rule 012 specifies that “the PSL at the new dwelling will be the greater of the sound level existing at the start of the new dwelling construction, or the PSL as determined in Section 2.1 of this rule.” In cases where an NIA is not available for the facility in question, the licensee may use a measured comprehensive sound level (CSL) or a modelled cumulative sound level to represent the sound level existing at the start of new dwelling construction, but explanation must be provided for why the measured/modelling value is representative of conditions existing at the time of dwelling construction.

Section 1 Requirement changes

Topic 4 Noise receptor

The Commission will make the following changes to Rule 012:

- **Definition of “noise receptor” in Appendix 1 – Glossary**
 - The Commission will define “noise receptor” as any dwelling located within 1.5 km of the facility property boundary or, in the absence of dwellings, any point at 1.5 km from the facility property boundary that is reasonably suitable for habitation.
 - This definition will be added to the glossary. The Commission intends to use the term “noise receptor” throughout the rule wherever applicable.
- **New subsection 1.4(4)**
 - The Commission will emphasize that it retains the discretion to consider noise compliance at continuous and persistent ceremonial and/or cultural sites that are significant to an Indigenous group and that are within 1.5 km of the project property boundary.
- **Subsection 3.2(3)**
 - The Commission will clarify that consideration of noise impacts to non-dwelling locations is confined to continuous and persistent ceremonial and/or cultural sites that are significant to an Indigenous group and that are within 1.5 km of the project property boundary.
 - The Commission will clarify that a party who requests consideration of a non-dwelling location must provide explanation to the proponent for why noise compliance at this location should be predicted and assessed. This information and the proponent’s response to such request, including predicted sound levels and/or rationale as to why the non-dwelling site was included or excluded from the noise assessment, must be submitted to the Commission.

| Feedback from interested parties | Commission response |
|---|--|
| <p><u>Definition of “noise receptor”</u></p> <p>Some stakeholders suggested the Commission clarify the meaning of “noise receptor” (i.e., where compliance must be assessed) in the context of Rule 012.</p> | <p>The Commission notes that the current Rule 012 uses a detailed description each time it refers to the locations where compliance must be assessed in an NIA or noise survey.</p> <p>To simplify the description of the locations where compliance must be assessed, the Commission will define the term “noise receptor” in the glossary and then use this term throughout Rule 012 wherever applicable.</p> <p>“Noise receptor” is defined as any dwelling located within 1.5 km of the facility property boundary, or any point at 1.5 km from the facility property boundary if there are no dwellings within 1.5 km of the facility property boundary. For wind power projects, the 1.5 km buffer should be defined from the centre point of the tower of a wind turbine or within 1.5 km of the substation boundary.</p> |

Section 1 Requirement changes

The Commission may consider noise compliance at non-dwelling locations.

Parties suggested the Commission provide clarification in Rule 012 about whether and where noise at non-dwelling locations should be assessed. Specifically, stakeholders suggested the Commission clarify the following questions, when considering noise impacts/compliance at non-dwelling locations.

- **What** non-dwelling locations may be considered?
- **When** should the non-dwelling locations be considered?
- **What information** should be submitted to the Commission?

TC Energy Corporation suggested non-dwelling locations that may be considered in Rule 012 be restricted to Indigenous rightsholders' sites of ceremonial or cultural significance with seasonal occupation of Crown land within 1.5 kilometres (km) of the project boundary.

Fort McKay First Nation (FMFN) suggested the Commission require project proponents to consult with Indigenous communities to identify non-dwelling locations for use in the NIA.

Canadian Renewable Energy Association (CanREA) recommended the following paragraph be added in Rule 012 to clarify whether and where compliance at non-dwelling locations would be considered.

Based on information received from project stakeholders throughout the participant involvement program (PIP), noise compliance at other non-dwelling receptors (e.g., sites of ceremonial or cultural importance) may need to be evaluated as part of the NIA. In these circumstances, the party who requests consideration of a non-dwelling receptor must provide justification or explanation to the Proponent for why noise compliance at this location should be considered. This information, and the Proponent's response to such request(s) including rationale as to why a receptor was included or excluded from the NIA, must be documented as part of the PIP.

How should the 1.5 km boundary for noise receptors be defined?

Rule 012 sets PSLs for occupied dwellings. This approach may be challenging for traditional land users when there is no cabin or other permanent dwelling. During previous applications or hearings, interveners raised concerns about noise impacts to non-dwelling locations (especially to Indigenous ceremonial and/or cultural sites).

Below, the Commission addresses stakeholder questions about non-dwelling locations:

- **What** non-dwelling locations may be considered?

The Commission will narrow the consideration of non-dwelling locations to continuous and persistent ceremonial and/or cultural sites that are significant to an Indigenous group and that are within 1.5 km of the project boundary.

- **When** should the non-dwelling locations be considered?

During the participant involvement program for a proposed project required by Rule 007, applicants must consult with Indigenous groups. If an Indigenous group proposes a non-dwelling location (e.g., a site of ceremonial or cultural importance) for consideration as a noise receptor, the applicant should respond promptly. In its response, the applicant should provide predicted cumulative sound levels at the proposed location or provide an explanation for why this location will **not** be considered a noise receptor by the proponent.

- **What information** should be submitted for the Commission?

The applicant should submit to the Commission a summary of any communication between the applicant and the Indigenous group.

The Commission will include paragraphs clarifying the consideration of non-dwelling locations in Rule 012: one under Section 1.4 and two under subsection 3.2(3).

The Commission considers that it is appropriate to identify noise receptors within 1.5 km of the "facility property boundary" rather than the "facility

Section 1 Requirement changes

| | |
|--|---|
| <p>dNCL suggested the Commission replace “facility property boundary” with “facility fenceline” in the definition of “noise receptor”.</p> <p>CanREA noted that the proposed definition of “noise receptor” treats wind power projects and other types of projects differently. Specifically, the definition uses “centre point of the tower of a wind turbine” for wind power projects and uses “facility property boundary” for other types of projects. CanREA was seeking consistency with how receptors are defined and suggested the Commission replace “facility property boundary” with “any above ground project infrastructure.”</p> | <p>fenceline” because some facilities (e.g., a co-generator within an oil sand facility or a genset at a bitcoin mining facility) may not be surrounded by fences.</p> <p>The Commission believes that it is reasonable to treat wind power projects differently from other types of power generation facilities when defining “noise receptor,” because wind power projects are qualitatively different than other types of projects. Typically, a wind project is spread across a large area and interspersed with other land uses (e.g., residences), while other types of power generation facilities usually have infrastructure within a clear property boundary. The new definition for noise receptor will include specific mention of noise receptors for wind power projects.</p> |
| <p><u>The most affected noise receptor</u></p> <p>The AER suggested the Commission revise the proposed definition of “noise receptor” to require that compliance be assessed at the most affected <u>point</u> 1.5 km from the facility property boundary, if there are no closer dwellings.</p> | <p>The Commission intends to define noise receptor as any point along the 1.5 km boundary, if there are no closer dwellings.</p> <p>Note that revised subsection 3.1(1) of the rule will require an applicant to predict the noise impact of the proposed facility at the most affected <u>noise receptor(s)</u>, which includes the most affected 1.5 km boundary receptor (if there are no closer dwellings). This means the applicant should identify the most affected noise receptors based on modelling results and assess compliance at these receptors.</p> |
| <p><u>1.5 km boundary noise receptor (if there is no dwelling)</u></p> <p>SLR Consulting Canada Ltd. suggested the definition for a hypothetical 1.5 km boundary receptor specify that “any point within 1.5 km from the facility property boundary reasonably suitable for habitation.” The purpose of this clarification would be to avoid placing hypothetical receptors on water bodies, on mineral or energy leases, within non-energy industrial facilities, on pipeline rights-of-way, on roads, etc.</p> | <p>The Commission accepts SLR’s suggested clarification that a 1.5 km boundary receptor should be a location reasonably suitable for habitation and will revise the proposed definition of “noise receptor” accordingly. The definition will also clarify that the Commission retains the discretion to consider noise compliance at continuous and persistent ceremonial and/or cultural sites that are significant to an Indigenous group and that are within 1.5 km of the project property boundary.</p> |
| <p><u>Alignment with Alberta Energy Regulator Directive 038: Noise Control</u></p> <p>CanREA and HGC suggested the Commission collaborate with the AER to align the definitions of “noise receptor” in Rule 012 and AER Directive 038.</p> <p>CanREA explained that Rule 012 limits relate to cumulative sound level, which results from contributions from electricity generators operating under Rule 012</p> | <p>Where practical, the Commission endeavors to maintain consistency with AER Directive 038 but this is not always feasible given the nature of the facilities regulated by the Commission.</p> <p>The new definition of “noise receptor” generally aligns with the corresponding term in AER Directive 038, and consideration of continuous and persistent</p> |

Section 1 Requirement changes

| | |
|---|---|
| <p>and energy producing facilities operating under AER Directive 038. CanREA suggested that the Commission ensure alignment between the two documents.</p> | <p>ceremonial and/or cultural sites in Rule 012 does not materially conflict with AER Directive 038.</p> <p>Rare circumstances where Rule 012 and AER Directive 038 may consider different receptors will be addressed on a case-by-case basis.</p> |
| <p><i>“Noise receptor” or “receptor”</i></p> <p>AltaLink suggested the Commission clarify that “noise receptor” and “receptor” are interchangeable in the context of Rule 012.</p> | <p>“Noise receptor” and “receptor” are interchangeable in the context of Rule 012. The revised Rule 012 will use “noise receptor” throughout.</p> |

Topic 5 Tonality evaluation

The Commission will make the following change to Rule 012:

- **New subsection 4.5(5)**
 - The Commission will clarify that it may require tonality evaluation for all audible frequencies in a CSL survey ordered in response to a noise complaint.

| Feedback from interested parties | Commission response |
|--|--|
| <p><u>Should the Commission consider tonality evaluation for all audible frequencies?</u></p> <p>Some stakeholders, including the AER, Acoustical Consultants Inc. (ACI), and Motive Acoustics, support tonality evaluation at all audible frequencies, not only at low frequencies.</p> <p>In particular, the AER noted that the existing provisions of Rule 012 do not require an evaluation of potential tonality at mid or high frequencies (i.e., frequencies above 250 hertz (Hz)) and stated that mid-frequency and high-frequency tones can be important when assessing potential noise impacts in populated urban areas where the propagation distance between facility and receptors may be small. The AER suggested the Commission consider requiring an assessment of tonality for all audible frequencies, and requiring an adjustment to broadband sound levels in cases where a tone is present. Further, the AER pointed out that adjustments for tones suggested in ISO Standard 1996-2 are not limited to low frequency tonal components.</p> | <p>Rule 012 requires an evaluation of low frequency noise (LFN) conditions be conducted as part of an NIA or post-construction CSL survey. Rule 012 specifies two criteria to identify a LFN condition:</p> <ul style="list-style-type: none"> (i) dBC minus dBA is greater than or equal to 20 dB, and (ii) a clear tonal component existing at a frequency between 20 and 250 hertz (Hz). <p>Based on review of previous noise complaints submitted to the Commission, the Commission notes that tonal sound can be more noticeable than broadband sound at the same level, and that many noise complaints are driven by prominent tones. Therefore, the Commission will add clarification in Rule 012 that it may require tonality evaluation for all audible frequencies (not just low frequencies) under specific circumstances.</p> |

Section 1 Requirement changes

| | |
|---|---|
| <p><u>When should the Commission consider tonality evaluation for all audible frequencies?</u></p> <p>ACI indicated tonality should be limited to post-construction CSL surveys and not be required at the design/modelling stage because detailed sound levels for tonality evaluation likely will not be available.</p> <p>Similarly, Stantec explained that tonality evaluation for all audible frequencies is not necessary or feasible in an NIA, as it is a predictive process and detailed sound levels for tonality evaluation likely will not be available for an NIA.</p> <p>Further, dNCL submitted that tonality evaluation can only be determined after a facility is operational.</p> | <p>The Commission generally agrees with stakeholders' comments on tonality evaluation. In particular,</p> <ul style="list-style-type: none"> • Tonality evaluation is not feasible for NIAs at the application stage, because tests for tonality cannot typically be applied to noise model outputs. • Tonality evaluation is typically applied using measured data after a facility is operational. <p>For the above reasons the Commission may require evaluation of tonality at all audible frequencies during post-construction CSL surveys but not at the application stage.</p> |
| <p><u>Should tonality evaluation be considered in response to a noise complaint?</u></p> <p>Most stakeholders, including the AER, GCR, ENMAX, and Motives Acoustics, suggested that tonality evaluation only be considered during a CSL survey ordered by the Commission in response to a noise complaint where a resident complains specifically about tonal noise.</p> <p>However, some stakeholders, including ACI and HGC, suggested tonality be assessed in all CSL surveys ordered by the Commission, regardless of if the surveys were ordered in a condition of approval or in response to a noise complaint. HGC explained that the Commission should not put the onus of proposing tonality evaluation on the complainant.</p> | <p>The Commission may order a post-construction CSL survey including LFN evaluation:</p> <ul style="list-style-type: none"> • as a condition of approval; and/or • in response to a noise complaint. <p>After considering stakeholder comments, the Commission finds it reasonable to clarify that tonality evaluation for all audible frequencies may be required in a CSL survey ordered in response to a noise complaint, regardless of whether tonal noise is specifically mentioned.</p> |
| <p><u>Cost concerns about tonality evaluation for all audible frequencies</u></p> <p>A few stakeholders disagreed with tonality evaluation at all audible frequencies. For example, EPCOR Distribution & Transmission Inc. and AltaLink were concerned that that the requirement for tonality evaluation would result in additional time and cost.</p> | <p>The Commission understands that the requirement for tonality evaluation for all audible frequencies would result in additional regulatory effort. Therefore, the Commission will not require tonality evaluation in all post-construction CSL surveys; instead, it will limit this requirement to a CSL survey ordered in response to a noise complaint or at the discretion of the Commission.</p> |
| <p><u>Should the Commission maintain the current method in Rule 012 for tonal component?</u></p> <p>Most stakeholders had no concerns with the current method for tonal component identification, and suggested the Commission maintain the method</p> | <p>Rule 012 provides a detailed approach for tonality evaluation in subsection 4.5(2)(b) (i.e., the tonal component criteria for evaluating LFN conditions).</p> <p>In circumstances where tonality evaluation is required by the Commission, the Commission will maintain the current method, as this approach has been used</p> |

Section 1 Requirement changes

| | |
|---|--|
| <p>and apply it to all audible frequencies (if the Commission were to require tonality evaluation for all audible frequencies).</p> <p>The AER suggested that the current LFN evaluation remain until the AUC finds a consistent tonality evaluation method to transition from the current LFN analysis to a comparable evaluation method for all audible frequencies.</p> <p>dNCL suggested the Commission allocate appropriate funds to perform research into the topics related to tonality evaluation, and not transfer this burden to consultants and other stakeholders.</p> <p>HGC recommended use of the ISO/PAS 20065 technical standard for tonality evaluation.</p> | <p>since the original development of AER Directive 038 (and subsequently Rule 012) and no specific concerns have been raised.</p> <p>The Commission has decided not to reference the tonality evaluation method from ISO/PAS 20065, for the following reasons.</p> <ul style="list-style-type: none">• ISO/PAS 20065 does not apply to frequencies below 50 Hz;• ISO/PAS 20065 appears to be more complex than the tonal component criteria in subsection 4.5(2)(b) of Rule 012. Specifically, the standard requires use of a sound level meter that can implement the Fast Fourier Transform (FFT). The Commission understands that FFT capability is not a standard feature on typical Class 1 sound level meters (although an FFT module can be purchased as an optional feature on some Class 1 sound level meters). (Note: Section 4.7.1 of Rule 012 specifies the requirements for sound level meters and will continue to not require sound level meters to have FFT capability.)• The Commission intends to maintain consistency between Rule 012 and AER Directive 038 in terms of the method for tonality evaluation. |
| <p><u>Should the Commission maintain the dBC minus dBA element of the low frequency noise evaluation?</u></p> <p>Stakeholders supported the current system for low frequency noise (LFN) evaluation including LFN tonal noise. In particular, some stakeholders, including GCR and HGC, stated that the dBC minus dBA element of the current low frequency assessment works well as a simple measure or a quick check to determine if there are low frequency concerns at the modelling stage.</p> <p>AltaLink submitted that the dBC minus dBA element for LFN should remain for transmission facilities even if tonality evaluation is required.</p> <p>Motives Acoustics specified that both dBC-dBA and tonal evaluation should be maintained in the regulation as independent criteria.</p> | <p>After considering stakeholder comments, the Commission will maintain the LFN criteria in Rule 012, including the dBC-dBA approach and tonal component identification, to evaluate the potential for LFN conditions during the application or prediction stage, because</p> <ul style="list-style-type: none">• The criteria for LFN analysis have worked well and the Commission has not heard specific concerns about the application of these criteria; and• dBC-dBA is a straightforward approach to evaluating the potential for LFN conditions at the prediction stage. |

Section 1 Requirement changes

Topic 6 **New noise impact assessment flowchart**

The Commission will make the following changes to Rule 012:

- **Merge the current Section 3.3 into Section 3.2**
 - Given that both sections 3.2 and 3.3 of the current Rule 012 are related to the requirements for NIAs, it makes sense to combine them into one section (Section 3.2). Consequently, the current Section 3.4 will be changed to Section 3.3.
- **New subsection 3.1(4)**
 - The Commission will describe the types of facilities that are expected to generate negligible noise. For these types of facilities, an NIA will not be required before commencing operation.
- **New subsection 3.1(5)**
 - The Commission will introduce a new tool (NIA flowchart) that allows proponents to determine if preparation of an NIA is required where the facility is expected to generate minimal noise.
 - Specifically, the NIA flowchart is applicable if:
 - A facility is exempt from filing a Rule 007 application, or
 - A facility is only required to file a checklist application under Rule 007.
- **New subsection 3.1(6)**
 - The Commission will clarify that if the Commission receives a noise complaint against a facility that is expected to generate negligible noise (e.g., household solar panels), the facility owner must demonstrate compliance with Rule 012 via measurements.
- **New Appendix 9**
 - The NIA flowchart will provide objective criteria for determining if noise impacts are expected to be minimal. If these criteria are satisfied, then further assessment is not required. If these criteria are not satisfied, then the proponent must complete an NIA.

| Feedback from interested parties | Commission response |
|--|---|
| <p><u>In what circumstances is an NIA not required in any form?</u></p> <p>The Commission often receives inquiries from stakeholders about whether an NIA is required for a facility that generates negligible noise.</p> | <p>The Commission notes that in Alberta, some homeowners install solar panels with low power ratings for household use and these types of facilities are expected to generate negligible noise.</p> <p>If no noise-emitting equipment is proposed to be added or amended, or where a facility is expected to generate negligible noise (e.g., solar panels for household use), submission of an NIA is not required in any form (i.e., no need for an NIA</p> |

Section 1 Requirement changes

| | |
|---|---|
| | <p>or NIA summary form). But if a Rule 007 application is required for the facility, the applicant must include text in its Rule 007 application explicitly stating why an NIA is not required in any form.</p> <p>In Section 3.1 of Rule 012, the Commission will describe the types of facilities that are expected to generate negligible noise and for which a noise assessment is not required in any form before the facility commences operation. However, if the Commission receives a noise complaint against a facility that is expected to generate negligible noise (e.g., household solar panels), the facility owner may be required to demonstrate compliance with Rule 012 via a CSL survey.</p> |
| <p><u>NIA requirements in cases of an exempt facility or a checklist application facility under Rule 007</u></p> <p>The Commission often receives inquiries from stakeholders about if and how an NIA should be completed in cases where a facility is exempt from the requirement to file an application, or the proponent is filing a checklist application under Rule 007.</p> <p>Stakeholders suggested the Commission clarify whether there is a simplified way to conduct NIAs for application exempt facilities or checklist application facilities as these types of facilities usually generate little noise.</p> | <p>The Commission emphasizes that in cases where a facility is exempt from the requirement to file an application or the proponent is filing a checklist application under Rule 007, a facility must still comply with Rule 012.</p> <p>However, the Commission acknowledges that the types of facilities that are exempt from filing a Rule 007 application, or are only required to file a checklist application, often generate relatively little noise compared to the types of facilities that are required to file a detailed Rule 007 application. To increase efficiency and help reduce regulatory burden, the Commission has created a flowchart that will allow proponents to determine if preparation of an NIA is required in cases where the noise impact from a facility is expected to be minimal.</p> <p>The flowchart will provide objective criteria for determining if noise impacts are expected to be minimal. If these criteria are satisfied, then further assessment is not required. If these criteria are not satisfied, then the proponent must complete an NIA.</p> |
| <p><u>Output of an NIA flowchart</u></p> <p>GCR suggested the Commission clarify whether the output of a flowchart take the form of a results table or flowchart itself.</p> <p>EPCOR requested confirmation whether an NIA flowchart is required to be completed, if no noise-emitting equipment is proposed to be added, replaced or modified at an existing transmission facility.</p> | <p>The flowchart is a tool to assist applicants in determining if the expected noise impact is minimal in cases where some noise is expected. The form of output for an NIA flowchart could be a copy of the flowchart with the path and answers noted on it or a results table, numbered to match the flowchart, with answers to the questions along the applicable path. Applicants are not expected to submit a copy of their flowchart analysis unless requested by the Commission, or where required as part of a compliance or complaint investigation process.</p> |

Section 1 Requirement changes

| | |
|--|---|
| <p>Versorium Energy Ltd. suggested the Commission clarify that an NIA or an NIA summary form are not required if a proponent submitting a checklist application has completed the NIA flowchart and has determined that it meets the less than three dBA criteria.</p> <p>AltaLink suggested the Commission clarify whether the end boxes of the proposed flowchart that indicate “an NIA is not required” really mean “No NIA required but noise impacts are expected to be minimal and you need to complete the NIA Summary Form.”</p> | <p>Neither an NIA nor an NIA summary form is required if a checklist applicant has properly utilized the NIA flowchart applying accurate information and correctly concluded that noise from its proposed project meets the criteria in the flowchart for no NIA. If a Rule 007 application is required for the facility, the applicant must include text in its application explicitly stating why an NIA is not required.</p> <p>The term “NIA summary form” is not shown in the NIA flowchart, because the flowchart’s purpose is to determine if an NIA is required or not.</p> <p>Once it is determined that an NIA is required, the applicant should determine what reporting format it can take. It is not intended for this determination to be made within the flowchart analysis. An NIA summary form is a simplified <u>reporting</u> format. Subsection 3.1(7) of revised Rule 012 explains circumstances where NIA results may be submitted using an NIA summary form.</p> |
| <p><u>“Dwelling” or “noise receptor” in the NIA flowchart</u></p> <p>EPCOR notes that the proposed NIA flowchart refers to “dwelling” rather than “noise receptor” and seeks confirmation that the use of “dwelling” was intentional.</p> | <p>The Commission intentionally used the term dwelling in the flowchart because to answer the question in box 4.0 in the flowchart (“Is the nearest dwelling in the near field or far field of the facility?”), it is necessary to refer specifically to a dwelling, rather than a noise receptor. This is because the term noise receptor can mean two different things. It is either a dwelling within 1.5 km of the facility property boundary or, if there are no dwellings, any point at 1.5 km from the facility property boundary reasonably suitable for habitation.</p> <p>“Dwelling” and “1.5 km boundary receptor” are necessarily used separately in the NIA flowchart (e.g., boxes 2.1 and 2.2.)</p> |
| <p><u>Noise receptors within the near field</u></p> <p>SLR submitted that in cases where noise receptors are located within the near field of the facility, and a computer sound propagation model is needed, then it makes sense to simply end that branch of the flow chart at requirement of an NIA as one will have to be commissioned at that point.</p> | <p>The Commission accepts SLR’s suggestion that once the nearest dwelling is identified as being located in the near field of the facility, then a computer noise model should be developed and an NIA is required (i.e., the flowchart analysis need not continue beyond this point). The final flowchart will incorporate this change.</p> |
| <p><u>“Checklist application” and “exempt facility” referenced in Rule 012</u></p> <p>SLR and EPCOR requested the Commission confirm that “checklist application” and “exempt facility”, as used in Rule 012, refer to definitions in Rule 007.</p> | <p>The Commission will add clarification in Rule 012 that “checklist application” and “exempt facility” are as defined in Rule 007.</p> |

Section 1 Requirement changes

Definitions of “near field” and “far field”

dNCL and GCR sought further clarification about the definitions of “near field” and “far field”. In particular, GCR noted that the definitions are based on the dimensions of the noise source and asked whether the dimensions refer to the noise-emitting equipment dimensions, or the project fenceline dimensions.

Rule 012 provides definitions of “near field” and “far field” in Appendix 1 – Glossary. In the definitions, noise source refers to noise-emitting equipment or a combination of noise emitting equipment (if multiple pieces of equipment are located close together).

Section 2 Clarifications

Section 2 Clarifications

Topic 7 Submission and retention of noise impact assessment records

The Commission will make the following changes to Rule 012:

- **New Section 3.3**

- The Commission notes several paragraphs in the current version of Rule 012 address retention of NIAs, noise surveys and associated information. The Commission will combine these paragraphs into one new section – Section 3.3 of Rule 012, which will detail the requirements for submission and retention of NIA records.

| Feedback from interested parties | Commission response |
|---|---|
| <p><u>NIA submission and retention requirements for a Rule 007 application</u></p> <p>Stakeholders sought clarification from the Commission whether an applicant should keep records of an NIA and supporting information (e.g., models and measurements), after it submits the NIA as a part of its application.</p> | <p>Typically, an NIA is filed with the Commission as part of a facility application under Rule 007. In this case, the Commission keeps the NIA on file indefinitely and the facility’s licensee must keep records of all supporting information relating to the NIA until the facility is decommissioned and salvaged.</p> |
| <p><u>NIA submission and retention requirements for an exempt facility or checklist application under Rule 007</u></p> <p>Stakeholders sought clarification from the Commission about NIA submission and retention requirements in these special cases:</p> <ul style="list-style-type: none"> • A facility that is exempt from filing a Rule 007 application, or • A facility that is only required to file a checklist application under Rule 007. | <p>In these cases where minimal noise is expected, the facility must still comply with Rule 012 PSLs, and the facility owner must use the NIA flowchart to determine if preparation of an NIA is required before the facility commences operation. The facility owner should keep records of all supporting information relating to the NIA flowchart or the NIA until the facility is decommissioned and salvaged.</p> <p>A copy of the NIA flowchart analysis or the NIA must be provided to the Commission on request, or as part of a compliance or complaint investigation process. As mentioned in Topic 6, the form of output for an NIA flowchart could be a copy of the flowchart with the path and answers noted on it or in a results table, numbered to match the flowchart, with answers to the questions along the applicable path.</p> |
| <p><u>NIA submission and retention requirements in the event of a noise complaint</u></p> <p>Stakeholders sought clarification from the Commission about NIA submission and retention requirements in the event of a noise complaint.</p> | <p>In the event a noise complaint is filed after the facility commences operation, the Commission may conduct an investigation to address the complaint. As part of this investigation, the Commission will require the owner to provide a copy of</p> |

Section 2 Clarifications

| | |
|---|--|
| | its NIA flowchart analysis or the NIA (completed before the start of operation) predicting the facility would comply with Rule 012. |
| <p><u>NIA requirements in cases of mitigation or Class A/C adjustments</u></p> <p>Stakeholders suggested the Commission clarify NIA submission requirements in cases where mitigation measures are recommended or Class A or C adjustments are applied for, in cases of an exempt facility or checklist application.</p> | An NIA must always be submitted to the Commission if mitigation measures are required to reduce noise and comply with Rule 012 and/or if a Class A or Class C adjustment is being sought for any receptor. |

Topic 8 Noise impact assessment summary form

The Commission will make the following changes to Rule 012:

- **Subsection 3.1(7)**
 - The Commission will clarify that an NIA summary form is a simplified reporting format and applications that make use of an NIA summary form are still expected to meet requirements for modelling and assessment specified in Section 3.2 of Rule 012.
 - The Commission will clarify circumstances where an NIA summary form may be submitted to meet the requirements of Rule 012. Specifically, the Commission will clarify an NIA summary form may be submitted to meet the requirements of Rule 012, if a facility meets the three-dBA criterion or results in “no net increase” at receptors.
- **Appendix 3**
 - The Commission will streamline Appendix 3 of Rule 012 to clarify the requirements in an NIA summary form.

| Feedback from interested parties | Commission response |
|--|--|
| <p><u>Circumstances where an NIA summary form may be submitted.</u></p> <p>The Commission often receives inquiries from stakeholders about circumstances where NIA results may be submitted using an NIA summary form.</p> <p>In particular, SLR suggested the Commission clarify that in cases where a Rule 007 facility meets either the 3+ dBA below PSL or ≤ 0.4 dBA above PSL no-net-increase criteria, an NIA summary form can be filed to meet the requirements of Rule 012.</p> | <p>Noise impacts are dependent on noise emissions from equipment associated with facility operation and on the distance between the facility and receptors. The Commission will use the predicted cumulative sound level at noise receptors to determine whether or not a particular facility qualifies to use the summary form. The Commission clarifies that if an applicant can demonstrate the noise contribution from its proposed facility will be minimal at nearby receptors, it will be allowed to use the NIA summary form (regardless of the specific nature of the facility).</p> <p>The Commission will add a new section that specifies these two criteria for use of an NIA summary form:</p> |

Section 2 Clarifications

| | |
|---|--|
| | <p>(i) predicted cumulative sound level is less than the PSL by at least three dBA (i.e., three-dBA criterion); or</p> <p>(ii) the proposed facility qualifies to use the “no net increase” approach (i.e., predicted cumulative sound level does not exceed the PSL by more than 0.4 dB, assuming baseline case sound level is exactly compliant with the PSL).</p> <p>Both the three-dBA criterion and the “no net increase” approach can be applied quantitatively and should ensure that a facility that qualifies for use of the NIA summary form will generate little noise at receptors.</p> |
| <p><u>The Commission will move the criteria for use of an NIA form from Appendix 3 into the main body of the rule.</u></p> <p>The current version of the NIA summary form (Appendix 3 of Rule 012) includes the following criterion “Is the predicted cumulative sound level less than the permissible sound level by a margin of three dBA? If “No”, conduct a detailed NIA as per Section 3 of AUC Rule 012.”</p> <p>However, the Commission notes that stakeholders are often unaware of the three-dBA criterion until they start preparing an Appendix 3 NIA summary form.</p> | <p>The three-dBA criterion is critical when determining whether use of the summary form is permitted for a particular application, but this criterion does not appear in the main body of Rule 012.</p> <p>The Commission will add the criteria for use of the NIA form, both the three-dBA criterion and the “no net increase” approach, in the main body of the revised rule to provide further clarity on when the summary form may be used.</p> |

Section 2 Clarifications

Topic 9 Overview of noise impact terminology

The Commission will make the following changes to Rule 012:

- **New graphic under Section 3**
 - The new graphic will illustrate the applicability of different assessment methods (i.e., NIA flowchart, NIA summary form and NIA).

| Feedback from interested parties | Commission response |
|--|--|
| <p><u>Clarity about noise impact terminology</u></p> <p>Stakeholders generally support the Commission adding clarity about noise impact terminology in Rule 012.</p> | <p>The Commission believes the graphic added under Section 3 of Rule 012 will provide a quick overview of NIA terminology, including NIA flowchart, NIA summary form and NIA.</p> |
| <p><u>NIA flowchart vs. NIA summary form</u></p> <p>Some stakeholders were confused by the two terms: NIA flowchart and NIA summary form, and suggested the Commission provide further clarity.</p> | <p>The NIA flowchart provides a simplified way to <u>assess</u> noise impacts from a facility that:</p> <ul style="list-style-type: none"> • is exempt from the requirement to file a Rule 007 application, or • is eligible to file a checklist application under Rule 007. <p>In contrast, an NIA summary form provides a simplified format to <u>report</u> the results of an NIA; the NIA summary form can be used for a facility that:</p> <ul style="list-style-type: none"> • has at least three-dBA compliance margin, or • meets criteria for the “no net increase” approach. |
| <p><u>NIA summary form vs. NIA</u></p> <p>The AER suggested the Commission add more clarity in the rule regarding the term “NIA.” In particular, the AER suggested that when the rule refers to a major application requiring an NIA, the term “detailed NIA” be used throughout the rule, instead of only using the word “NIA”</p> | <p>A detailed NIA and an NIA summary form share the same requirements for modelling and assessment; an NIA summary form is a simplified <u>reporting</u> format. Therefore, the Commission will use the term “NIA” to refer to both a detailed NIA and an NIA summary form, throughout the rule.</p> |

Section 2 Clarifications

Topic 10 Comprehensive sound level survey

The Commission will make the following changes to Rule 012:

- **Subsection 4.6.1(1)**
 - The Commission will specify the appropriate location(s) for a CSL survey.

| Feedback from interested parties | Commission response |
|--|---|
| <p><u>Noise receptor(s) for a CSL survey</u></p> <p>In a previous noise complaint case, multiple residents reached out to the Commission to complain about a nearby facility. The Commission directed the facility licensee to conduct a CSL survey during its investigation. In response to the licensee’s request, the Commission gave instructions on which dwelling(s) should be selected for the CSL survey.</p> | <p>A CSL survey may be required in the following circumstances:</p> <ul style="list-style-type: none"> • In response to a condition of approval. • In response to a compliance audit by the Commission. • In response to a noise complaint. <p>The Commission will revise subsection 4.6.1(1) of Rule 012 to specify the noise receptor(s) for a CSL survey in the above circumstances. The CSL survey shall be conducted at:</p> <ul style="list-style-type: none"> • the noise receptor(s) specified in the condition, when the CSL survey is conducted to satisfy an approval condition ordered by the Commission; or • the noise receptor(s) identified by the Commission, when the CSL survey is conducted in response to an audit by the Commission requiring the licensee to demonstrate its facility’s compliance; or • the complainant noise receptor or the nearest complainant noise receptor to the facility (if there are multiple complainants), when the CSL survey is conducted in response to a noise complaint. |
| <p><u>The Commission may order a CSL survey at 1.5 km from the facility property boundary.</u></p> <p>The AER suggested the Commission add a requirement in Rule 012 that in cases of a complainant residing beyond the 1.5 km boundary, the CSL survey shall be conducted at a representative location 1.5 km from the facility boundary, instead of at the complainant’s residence.</p> | <p>Rule 012 is clear that facilities must comply with the PSL at the nearest dwelling(s) or at 1.5 km from the facility property boundary in cases where there is no closer dwelling.</p> <p>Depending on local conditions and/or the nature of the complaint, the Commission may order a CSL survey at:</p> <ul style="list-style-type: none"> • 1.5 km from the facility property boundary, • the nearest dwelling, or |

Section 2 Clarifications

| | |
|--|---|
| | <ul style="list-style-type: none"> • the complainant dwelling. <p>The Commission accepts the AER’s suggestion and will add a requirement in subsection 4.6.1(1) of Rule 012 that in cases where a complainant resides more than 1.5 km from a facility and there are no dwellings within 1.5 km of the facility, the Commission may order a CSL survey at 1.5 km from the facility property boundary to verify project compliance with the rule.</p> |
|--|---|

Topic 11 **Conditions for a time extension request**

The Commission will make the following changes to Rule 012:

- **Subsection 1.5(1)**
 - The Commission will streamline subsection 1.5(1) of Rule 012 to:
 - (i) exclusively address conditions for time extension requests and avoid discussion of major amendments to the approved facility; and
 - (ii) dissociate a time extension request from the construction schedule of an approved facility.
- **Subsections 1.5(2) and 1.5(3)**
 - The Commission will remove current subsections 1.5(2) and 1.5(3) of Rule 012, because they describe general requirements that apply for all NIAs, not specifically to time extension requests, and are already covered in sections 2.7 and 3.1.

| Feedback from interested parties | Commission response |
|---|---|
| <p><u>Should noise conditions for a time extension request relate to the construction schedule of an approved facility?</u></p> <p>The current subsection 1.5(1) of Rule 012 specifies circumstances where a new NIA must be filed as part of a time extension request for an approved facility. These circumstances are called conditions for a time extension request, which include:</p> <ul style="list-style-type: none"> • major amendments to the approved facility, • changes to the most affected noise receptor(s), and • changes to nearby energy-related facilities that may influence compliance of the approved facility. | <p>The Commission will remove the text “if construction has not begun prior to the expiry date of the approval” from subsection 1.5(1) of Rule 012, because the Commission does not believe conditions for a time extension request should relate to the construction schedule of an approved facility.</p> <p>In particular, the Commission clarifies that for a time extension request application, the licensee must check for changes to the most affected noise receptor(s) and check for new energy-related facilities nearby that may influence compliance at noise receptor(s), regardless of the progress of project construction.</p> |

Section 2 Clarifications

| | |
|---|---|
| <p>Under one or more of these conditions, a new NIA must be filed as part of a time extension request.</p> <p>A few stakeholders requested the Commission clarify whether conditions for a time extension request relates to the construction schedule of an approved facility (e.g., commencement of construction or completion of construction).</p> | <p>If any changes to the most affected receptors and/or nearby energy-related facilities are identified, the licensee must submit a new NIA as part of its time extension request application.</p> <p>In circumstances where a new dwelling is built in proximity to an approved facility, the licensee should assess whether cumulative sound levels at the new dwelling are compliant with the applicable PSLs defined in Sections 2.4 or 2.5 of Rule 012 (i.e., the sections specifying how to determine PSLs at new dwellings close to an approved but not yet constructed facility).</p> |
| <p><u>Should the requirement of a new NIA for major amendments be specific to time extension requests?</u></p> <p>The Commission often receives inquiries from stakeholders seeking clarification of the requirement in subsection 1.5(1) that a new NIA must be filed as part of a time extension request, if the licensee is proposing major amendments to the facility.</p> | <p>The Commission will remove the first item under the current subsection 1.5(1) of Rule 012: “the licensee is considering major amendments to the approved facility,” because the requirement of a new NIA for major amendments to an approved facility should not be a condition specific to time extension requests. For example, an approved wind project has applied to change wind turbine technology and/or wind turbine locations and has also applied for an extension to the construction completion date. In this case, major amendments should be addressed through an amendment application under Rule 007, not as part of a time extension application.</p> |

Topic 12 Noise complaint investigation

The Commission will make the following changes to Rule 012:

- **Section 5.2**
 - The Commission will revise Section 5.2 of Rule 012 to clarify when noise complaint investigation forms should be completed and submitted.

| Feedback from interested parties | Commission response |
|---|---|
| <p><u>Completion and submission of noise complaint investigation forms</u></p> <p>The Commission often receives inquiries about whether and when noise complaint investigation forms should be completed and submitted.</p> <p>The Commission expects the licensee and the complainant to submit completed noise complaint forms when a formal complaint is filed with the Commission;</p> | <p>The Commission will revise subsection 5.2(3) Rule 012 to clarify that noise complaint investigation forms (Appendix 4 of Rule 012) should be completed whenever there is a noise complaint, regardless of whether a CSL survey is ultimately required to address the complaint. Note that noise complaint investigation forms should be completed by both the licensee and complainant.</p> <p>Regarding submission of noise complaint investigation forms, the Commission will clarify:</p> |

Section 2 Clarifications

| | |
|---|---|
| <p>however, the Commission often notes such forms are missing at the beginning of its investigation.</p> | <ul style="list-style-type: none"> • If the licensee and complainant are able to resolve the complaint between themselves, the noise complaint investigation forms are not required to be submitted; but the licensee must keep all information relating to the complaint including the noise complaint investigation forms. • If the licensee and complainant are unable to resolve the complaint and a formal noise complaint is filed with the Commission, the licensee is required to submit both the noise complaint investigation forms along with any other communication documents for the complaint. |
| <p><u>Filing of a formal noise complaint</u></p> <p>SLR suggested the Commission clarify whether it is expecting licensees to direct a complainant to the Commission in all complaint instances.</p> | <p>Licensees should take action to address noise complaints in a timely manner. A formal noise complaint should only be filed with the Commission in cases where the complainant and licensee are unable to resolve the complaint between themselves.</p> |

Topic 13 Statistical method

The Commission will make the following changes to Rule 012:

- **Appendix 9 - Statistical method to calculate a minimum number of valid samples**
 - The Commission will delete Appendix 9 of Rule 012.
- **Subsections 4.1(4)(b)(ii) and 4.6.3(3), and Table 5**
 - The Commission will update parts of Rule 012 that relate to the statistical method and replace them with a new method for combing data from multiple survey periods. The updated Rule 012 will allow a combination of data from multiple survey periods, so long as “the duration of valid data for each period to be combined is no less than 30 minutes and the difference in average sound levels from individual nighttime periods or daytime periods is no greater than plus or minus three dBA”.

| Feedback from interested parties | Commission response |
|---|--|
| <p><u>Should the Commission maintain the statistical method in Rule 012?</u></p> <p>The Commission notes that applicants rarely use the statistical method for confirming representative sound levels in a CSL survey.</p> | <p>The Commission will eliminate the statistical method in the interest of simplifying Rule 012. As long as the average noise levels from multiple measurement periods are consistent (i.e., within plus or minus three dBA), then a combination of data from these periods should be allowed.</p> |
| <p><u>Should the Commission maintain the statistical method in Rule 012?</u></p> | <p>The Commission notes dNCL’s concerns and will replace the statistical method with a method that considers both sample size and variation for combining valid</p> |

Section 2 Clarifications

| | |
|--|---|
| <p>dNCL recommended the statistical method not be removed. dNCL pointed out that the statistical method considers both sample size and variation, but the simplified method considers only sample variation.</p> | <p>data from multiple nighttime periods or daytime periods. Specifically, valid data from multiple nighttime periods or daytime periods can be combined if the duration of valid data for each nighttime/daytime period is no less than 30 minutes and the difference in average sound levels from individual periods is no greater than plus or minus three dBA.</p> |
|--|---|

Topic 14 Definition of heavily travelled road

The Commission will make the following changes to Rule 012:

- **Appendix 1 – Glossary**

- The Commission will clarify that the definition of heavily travelled road in Rule 012 places the traffic count methods in descending order of accuracy, and the Commission gives priority to the most accurate traffic data.

| Feedback from interested parties | Commission response |
|----------------------------------|---|
| <p>N/A</p> | <p>According to the current version of Rule 012, traffic counts by technician, traffic counts by audio, hourly traffic data from Alberta Transportation or municipalities, Average Annual Summer Daily Traffic (ASDT) data from Alberta Transportation, and Average Annual Daily Traffic (AADT) data from Alberta Transportation are all acceptable methods to establish nighttime traffic volumes on a transportation route for the purpose of determining if the route is a heavily travelled road.</p> <p>In Decision 27240-D01-2023, the Commission clarified that the definition of heavily travelled road provided in Rule 012 places the traffic count methods in descending order of accuracy and the Commission expects that the most accurate traffic data available at the time of application be used.</p> <p>The Commission will reiterate this clarification in the revised Rule 012.</p> |

Section 3 Edits

Section 3 Edits

Topic 15 Deletion

The Commission will delete the following paragraphs of Rule 012:

- **Last sentence in subsections 2.1(13)(d) and 2.1(13)(f)**
 - The Commission will delete the last sentence of current subsection 2.1(13)(d) and update current subsection 2.1(13)(f) so that it will refer to both Class C1 and Class C2 adjustments for wind turbines.
- **Subsection 3.1(4)**
 - Subsection 3.1(4) will be replaced by new subsections 3.1(4) and 3.1(5), which specify NIA requirements for special cases where a proposed project generates no or negligible noise, is exempt from filing a Rule 007 application, or is eligible to file a checklist application under Rule 007.
- **Subsection 3.2(9)(c)**
 - This subsection repeats material from subsections 2.1(10)(h) and 2.1(13)(h) in the current rule.
- **Subsection 3.2(10)**
 - This subsection repeats material from Section 2.7.
- **Subsection 4.6(1)(s)**
 - This subsection repeats material from subsection 5.2(3).
- **Subsection 4.6.1(3)(a)**
 - This subsection repeats new subsection 4.6.1(1).

Note: The Commission will NOT delete subsection 3.1(2).

| Feedback from interested parties | Commission response |
|--|---|
| <p>During Round 1 consultation, the Commission proposed deleting subsection 3.1(2) of Rule 012, because this subsection appeared to be repetitive of Section 2.7.</p> <p>SLR suggested the Commission maintain subsection 3.1(2) and explained that removal of the subsection explicitly stating the requirement to assess cumulative sound levels when there are other nearby facilities would be a significant and risky omission.</p> | <p>Given the concern raised by SLR, the Commission will maintain subsection 3.1(2) in the revised rule.</p> |

Section 3 Edits

Topic 16 Rephrasing and formatting

The Commission will make the following changes to Rule 012:

- **Text boxes**
 - The Commission will text boxes at various places in the rule to introduce or briefly describe important terms or processes at a high level.
- **The first paragraph**
 - The Commission proposes to include a clear statement that the revised rule applies to applications filed after a certain date to avoid confusion around which version of the rule applies.
- **Subsection 1.1(5)**
 - In this subsection, the Commission will clarify the meaning of “licensee.” Rule 012 uses “licensee” to refer to the party responsible for assessing and/or measuring noise from a facility. The definition will be rephrased to acknowledge that this party may not actually hold a licence or approval from the Commission if the facility does not require a Rule 007 application (i.e., a facility that is exempt from Rule 007).
- **Subsections 4.7.1(1) and 4.7.1(2)**
 - The Commission will change references to “type I” to “Class 1” to be consistent with standards for sound level meters (i.e., IEC 61672 standard).
 - The Commission will update the names of referenced standards in these subsections to be consistent with AER Directive 038.
- **Subsection 3.2(9)(a)**
 - The Commission will clarify that an NIA should assess compliance of the baseline case (i.e., calculate baseline sound levels and compare them to PSLs).
- **“Far field” and “near field” in Appendix 1 - Glossary**
 - The Commission will clarify that (i) the far field is the region far enough away from the source where the inverse square law applies; (ii) far field and near field can be determined using the largest dimension of the noise source.
- **In addition, the Commission will make minor edits to the wording of the following sections to provide clarity.**
 - subsection 3.2(15)
 - titles of Table 5 and Table 6
 - subsection 5.1(4)
 - Appendix 3
 - Appendix 4
 - Appendix 8

Section 3 Edits

Section 4 Other considerations from interested parties

The Commission will make no changes to Rule 012 for the topics in this section.

| Feedback from interested parties | Commission response |
|--|---|
| <p><u>Health paragraph</u></p> <p>dNCL suggested the Commission add text similar to that presented in Section 1.4 of AER Directive 038 into Section 1.2 of Rule 012. dNCL suggested that Rule 012 should include explicit reference to health because (i) the purpose of the rule should be to protect Albertans' health from undue noise, (ii) noise is considered a health issue according to Health Canada, and (iii) Rule 012 has its origins in AER Directive 038.</p> <p>FMFN submitted that noise can impact human health and wildlife. FMFN requested that Rule 012 be updated to allow for quantitative adjustments to noise thresholds and qualitative considerations based on Indigenous input and potential impacts to traditional land users and wildlife.</p> <p>FMFN recommended the Commission expand the scope of Rule 012 to incorporate noise impacts to human health, such as those outlined in <i>Health Canada's Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise</i>.</p> <p>For ease of reference, sections 1.4 and 1.6 of AER Directive 038 are presented below:</p> <p><i>"1.4 Need for Balance</i></p> <p><i>This directive attempts to take a balanced viewpoint by considering the interests of both the nearby residents and the licensee. It does not guarantee that a resident will not hear noises from a facility; rather it aims to not adversely affect indoor noise levels for residents near a facility. The directive sets permissible sound levels (PSLs) for outdoor noise, taking into consideration that the attenuation of noise through the walls of a dwelling should decrease the indoor sound levels to where normal sleep patterns are not disturbed."</i></p> | <p>Rule 012 has its origins in AER Directive 038. However, a health paragraph similar to Section 1.4 of AER Directive 038 was not included in the first version of Rule 012, or any subsequent versions of the rule.</p> <p>The Commission will not add a health paragraph in Rule 012. The Commission notes that Rule 012 does not require evaluation or assessment of indoor noise levels or noise-related health impacts. Health Canada's <i>Guidance for Evaluating Human Health Impacts in Environmental Assessment: Noise</i> is often referenced when applicants or stakeholders assess noise-related health impacts. The Commission does not consider it necessary to mention or emphasize this subject in Rule 012, because Rule 012 regulates noise based on compliance with PSLs, instead of acceptable thresholds for health impacts.</p> <p>Rule 012 provides objective numerical criteria to assess noise from a facility (i.e., whether the facility is compliant with PSLs set out in the rule). The Commission considers that the noise criteria established in Rule 012 helps protect human health and mitigate annoyance associated with noise.</p> <p>During the application review process, the Commission considers assessments for noise impacts on people and wildlife, and makes decisions based on information filed in the proceeding. In particular, a review of environmental effects is a component of the Commission's application process. The Commission considers all potential impacts on wildlife during the environmental review process, including any information about noise impacts.</p> <p>In summary, the Commission believes the PSLs set out in Rule 012 are conservative and are protective of human health and the environment. If an Indigenous group, or other party, feels that alternative noise limits should be considered in the particular circumstances of an area/application, they can submit a statement of intent to participate identifying these concerns for the Commission to consider during a proceeding.</p> |

Section 3 Edits

| | |
|--|---|
| <p><i>“1.6 Industrial Noise and Domestic Animals and Wildlife</i></p> <p><i>Landowners and residents often express concern about the impact of industrial noise on domestic animals and wildlife. While not the basis for these requirements, the AER continues to examine peer-reviewed scientific literature and has concluded to date that typical industrial noise regulated under its jurisdiction does not significantly impact the physiology and habituation patterns of animals over the long term. The literature does suggest that animals might temporarily avoid an area until they become familiar with or acclimatized to industrial noise.”</i></p> | |
| <p><u>Consideration of best available technology or practices</u></p> <p>FMFN suggested that when a proposed facility is expected to have an impact on the sound levels in the environment outside the facility fence line, noise impacts should be mitigated to the extent possible through best available technology or practices, regardless of what the compliance threshold or PSL may be.</p> | <p>Proponents must design their facilities such that off-site noise levels comply with PSLs from Rule 012. This effectively requires proponents to select equipment and technology that is appropriate for the environment in which the facility will operate. As such, the Commission does not plan to update Rule 012 to include a separate requirement that facilities make use of “best available technology or practices” in cases where the facility is determined to comply with PSLs from Rule 012. This reflects the Commission’s view that Rule 012 requirements are conservative and are protective of human health and the environment.</p> |
| <p><u>Definition of “wintertime”</u></p> <p>FMFN noted that there is a slight difference in the definition of “wintertime conditions” between Rule 012 and AER Directive 038. The AUC defines wintertime conditions as “there is snow, ice, or frozen ground cover and temperatures are typically below minus 10 degrees Celsius”, whereas AER’s temperature threshold is zero degrees Celsius. FMFN would like to understand the AUC’s rationale for this difference.</p> | <p>Rule 012 typically requires that CSL surveys be conducted under summertime conditions favourable to propagation. During the 2018/2019 rule revision process, the Commission updated the definition of “wintertime conditions” to specify a lower temperature limit (i.e., minus 10 degrees vs. zero degrees) as a practical approach to allow a longer window during which CSL surveys can be conducted.</p> |

Section 3 Edits

Splitting Rule 012 into a regulatory document and a technical document

dNCL proposes splitting the rule into two separate documents:

- a regulatory document that establishes thresholds to be adhered to, and
- a technical document describing how to conduct sound surveys to obtain the parameters required for the assessment of the regulatory thresholds (e.g., NIAs, ambient sound surveys, CSLs etc.).

The Commission believes it is efficient to maintain a single noise regulation that covers both noise thresholds and noise assessment techniques/methods.